JPRS-UAG-85-022 26 August 1985

# **USSR** Report

**AGRICULTURE** 

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## USSR REPORT AGRICULTURE

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#### MAJOR CROP PROGRESS AND WEATHER REPORTING

MORE EFFECTIVE SOWING STRUCTURE SOUGHT IN OREL OBLAST

Moscow IZVESTIYA in Russian 18 Mar 85 p 1

Article by V. Kulagin, Orel Oblast: "Orel Corrections"

<u>Text</u> Intensification requires that the agronomists search for a more effective sowing structure and the development of zonal farming systems.

The search for an optimum sowing ratio for certain crops has recently led to visible changes not only on experimental plots but also on thousands of hectares of arable land. This has been promoted by the use of contracts, since the cost accounting collectives are consistently replacing the low yield grain and forage crops with more productive ones. This spring, non-schedule teams and brigades contracted to raise crops on four fifths of the oblast's arable land.

"Agreements have been concluded with contractual subunits on the farms" stated the chief of the oblselkhozupravleniye oblast agricultural administration.

B. Lazko, "The kolkhozes and sovkhozes have agreements with aquicultural organizations, Selkhozkhimiya and Selkhoztekhnika calling for the efficient use of reclaimed lands. The all-round plans for spring work are being carried out in all areas."

To the words of B. Lazko, I would like to add: the council of the oblast agropromob"yedineniye agraindustrial association, considerably in advance of last year's autumn sowing work, studied very thoroughly the opinion expressed by the RAPO rayon agroindustrial association agronomic services and the leaders of non-schedule teams concerning improvements in the crop rotation plans. And an opinion was expressed almost unanimously: a sharp reduction must take place in the sowings of spring wheat, which in terms of yield is considerably inferior not only to winter but also to spring oats and barley in Orel Oblast.

As a result, substantial corrections were introduced last autumn into the disposition of winter grain crops.

"The farms decided to reduce their sowings of spring wheat from 96,000 to 33,000 hectares" explained B. Lazko, "As a result, they are expanding their barley areas by 20,000 hectares, oats -- by 25,000 and peas -- by 13,000 hectares. They are sowing more leguminous forage crops. We are growing winter

grain crops using the intensive technology on 24,000 hectares. Of the winter crops, a preference is being shown for Orlovskaya-9 rye. This variety was developed by Orel plant breeders."

Orlovskaya-9 rye earned the respect of the farmers rather rapidly. Thus, compared to last year when it was harvested from 13,000 hectares, this past autumn it turned green on 40,000 hectares. In a year's time its sowings will have doubled compared to this year.

"This summer we will harvest Orlovskaya-9 from 450 hectares of a total of 750 hectares of winter grain fields" stated the chairman of the Kolkhoz imeni XXII Partsyezda in Orlovskiy Rayon M. Spiridonov, "And next autumn we will sow 600 hectares. Our rye has many virtues: short and durable stalk, strong ears, it does not yield to frost, nor does it lodge. Under usual conditions, it furnishes up to 40 quintals of grain on the average."

Mikhail Vasilyevich heads one of the best farms in the oblast, one which for 4 years in a row has earned the Challenge Red Banner of the CPSU Central Committee, the USSR Council of Ministers, the AUCCTU and the Komsomol Central Committee. Notwithstanding the fact that two of the four years were dry ones, the farm coped with its five-year plan for the sale of milk and potatoes and is completing its deliveries of meat in behalf of the last year of the five-year plan. The farm's profitability level is approaching 60 percent.

There is only a limited amount of arable land at the kolkhoz -- 3,000 hectares. And thus the farmers and specialists concentrated all of their attention on raising the return from the land.

"Generally speaking, we are laying away a considerable amount of forage" stated Mikhail Vasilyevich, "almost 30 quintals of feed units per head. But it is still low in protein. Thus last year we sowed 430 hectares in clover and alfalfa. We plan to harvest not less than 2,300 tons of high protein hay -- twice the usual amount. We have become accustomed to high protein rape. This year its sowings are being expanded from 100 to 170 hectares.

The kolkhoz's chief economist, T. Kosolapov, acquainted us with an extremely notable figure. During the years of the 11th Five-Year Plan, the profit from each hectare of arable land doubled. Last year, each hectare furnished 425 rubles worth of profit.

Beyond any doubt, this was the result of a high culture of farming. But the new forms for labor organization in field crop husbandry, based upon cost accounting and greater independence for the farmers, made a notable contribution in this regard. Today, all petty support has been eliminated. There is a state plan for the sale of a particular product. And it is the law. The farmers themselves decide how it is to be fulfilled and at what price. And the farmers, taking into account the specific conditions, their own peasant experience and the independence of the collectives, introduce the necessary corrections into their farming practice in the interest of obtaining high final work results.

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#### BRIEFS

SNOWPLOWING OF FIELDS--Orel, 24 Jan--An abundant amount of snow fell in almost all of the oblast's rayons during the month of January. Many farmers lost no time in taking advantage of this fact, since they are well aware of the increase in yield to be realized from an accumulation of snow out on the fields. Over a period of several days, this important agricultural method was carried out with the aid of snowplows on the winter sowings and on tracts intended for sugar beets and forage crops -- on an area of more than 50,000 hectares. In carrying out their snowplowing work, the machine operators are striving to observe the proper work technology -- the assemblies move\_in spirals -- from the center of a field to its edges. \_ /by I. Mironov/ /Text/ /Moscow SELSKAYA ZHIZN in Russian 25 Jan 85 p 1/ 7026

FERTILIZER APPLICATIONS--Orel, 7 Mar--The procurement and shipping of local fertilizers in behalf of the future harvest is continuing on many farms throughout the oblast. Prior to the beginning of March, more than 900,000 tons of organic material were delivered to the kolkhoz and sovkhoz fields, including approximately 500,000 tons in February. Many mechanized brigades and teams are over-fulfilling their established tasks on a daily basis. Workers attached to an Orel motor transport enterprise are realizing a good return from their labor. The three fertility detachments that have been created here are equipped with 35 motor vehicles, bulldozers, tractor-shovels and other items of equipment. This year the plans call for more than 5 million tons of fertilizer to be procured and applied to the soil throughout the oblast as a whole. /Text//by I. Mironov/ /Moscow SELSKAYA ZHIZN in Russian 8 Mar 85 p 1/ 7026

COST ACCOUNTING SUBUNITS--Orel, 16 Apr[TASS]--Approximately 1,500 cost accounting subunits have been moved out onto the spring fields in Orel Oblast. They have undertaken to tend almost all of the grain and forage fields and the beet and potato plantations. The creation of detachments, brigades and teams was completed considerably prior to the commencement of field operations. They have been staffed with machine operators who have been allocated the required amounts of equipment, machines and fertilizer. This year, for the very first time, approximately 1 million hectares of arable land will be worked by consolidated detachments\_and\_brigades, in keeping with the crop rotation plans assigned to them. /Text/ /Moscow SELSKAYA ZHIZN in Russian 17 Apr 85 p 1/7026

NITROGEN FERTILIZER TOP DRESSING--Orel--The farmers in Kromskiy and Maloarkhangelskiy rayons in Orel Oblast have completed their work of applying

a root top dressing to all of the winter wheat sowings being grown using the intensive technology. The plants have been given a complete dose of nitrogen fertilizer. The farmers have vowed to obtain not less than 40 quintals of grain from each hectare of such sowings. /Text/ /Moscow SOVETSKAYA ROSSIYA in Russian 26 Apr 85 p 1/ 7026

GRAIN, SUGAR BEET SOWINGS--Orel, 13 May--The farmers in Orel Oblast are displaying haste. At night they prepare the soil and during the day they carry out their sowing work. Such is the method being employed by the machine operators of the Demidovskiy Sovkhoz, the kolkhozes imeni Sverdlov, imeni Karl Marks and Kruglyanskiy and a number of other farms in Livenskiy Rayon. They were some of the first in the oblast to sow their grain crops and sugar beets within a matter of hours and now they have already commenced tending their crops. At the present time, the non-schedule teams for the cultivation of potatoes of V.I. Savin and M.N. Slobodskiy of the Kolkhoz imeni XXII Partsyezd in Orlovskiy Rayon, which are over-fulfilling their output norms by one and a half times, are setting a fine example of labor\_valor. /by I. Mironoy/ /Text//Moscow SELSKAYA ZHIZN in Russian 14 May 85 p 1/ 7026

#### LIVESTOCK FEED PROCUREMENT

RSFSR FEED GRASS PROCUREMENT OVERVIEW

Moscow SOVETSKAYA ROSSIYA in Russian 28 Jun 85 p 1

Article by Vladimir Mikhaylov: "Feed For the Winter"/

/Text/ At the present time, one encounters either mowing machines or mowing personnel wherever he travels: the haying season is in full swing. The weather is not pampering the feed procurement specialists and they are accepting its vicissitudes in a more calm manner than in the past and with greater confidence in their abilities. Last year, which also was not a very favorable one, revealed that the farms are now rather adequately equipped and that under complicated conditions they are capable of supplying the livestock with feed for the entire winter. A need exists for ensuring that skilful use is made of the potential which the agroindustrial complex has at its disposal today. Noticeable increases have taken place in the amount of equipment available in all areas, the structure of the feed crop rotation plans has changed for the better, with the perennial grass fields, including leguminous grasses, increasing in particular, greater quantities of pulse crops have been sown and more extensive use is being made of progressive feed procurement technologies which ensure higher quality feed; mineral fertilizers are being applied in greater quantities over larger areas.

The farms in the north Caucasus were the first to commence mowing their grasses and yet it is only in Krasnodar Kray and the North Osetian ASSR that success was achieved in fully combining the natural advantages with good work organization. The Krasnodar workers have already completed their first cutting of perennial grasses and, at least until the rain comes, they will continue to place mainly haylage in storage and fulfill their annual plan for procuring it. Initially, nighttime watering was not organized in all areas here, but at the present time a considerable increase has taken place in the number of sprinkling machines being operated continuously around-the-clock. Land which becomes available is immediately being sown again in forage crops, with such sowings already occupying more than 40,000 hectares.

Some other rayons could be cited in which the mowing of grasses is being carried out in an energetic manner and without losing a day or even an hour. However, the overall situation provides no cause for complacency. Unfortunately, the successes achieved in recent years have had a calming effect on many individuals and in some areas the fact that many unresolved problems still persist is being overlooked. It would seem that everybody is aware that the

grasses should be cut down during the budding period, at which time they contain more nutrients. In addition, early mowing, especially in the nonchernozem zone, serves to guarantee that there will be good aftergrowth for a second cutting. At the present time, the zone for the blossoming of grasses has advanced far beyond Moscow, to the north, whereas in the central economic region the mowing machines are being operated at maximum capability only in Brest Oblast. The haying work is being dragged out in an intolerable manner in Vladimir, Kalinin, Ivanovo, Smolensk and Yaroslavl oblasts. The leaders of agroindustrial complexes of associations in these oblasts were criticized in the past for their inability to cut down their grasses in a tense manner and at the tempo required. In reply, many statements were heard to the effect that this year would be different. As yet however, the promised changes have not taken place and the mistakes made in the past are being repeated. Grass meal, which can be procured even during inclement weather, has been laid away in inexcusably small amounts and very limited amounts of haylage are being placed in storage, despite the fact that very little sun is required for carrying out this work. This is explained not only by slow preparation for work, a lack of coordination or the habit of waiting until the grasses have started growing again, but also by the fact that by no means is the feed harvesting equipment being repaired in a timely manner in all areas.

Prior to the beginning of the haying period in the Komi ASSR, for example, more than 40 percent of the mower-crushers and self-propelled combines, almost one third of the mowers and one fourth of the pick-up balers were still in need of repair. Many items of equipment were not prepared for operation in Kirov and Novosibirsk oblasts, with Siberia falling behind in this regard -- both western and eastern Siberia. The situation is further complicated by the fact that in many instances the servicing of operating mechanisms has been organized in a very unsatisfactory manner. Just as in the past, the associations of Selkhoztekhnika are attempting to free themselves from having to perform this work. And even industry has failed the feed procurement specialists: included among the enterprises which are disrupting the deliveries of spare parts for the feed harvesting machines and mechanisms -- the Lyubertsy Production Association Plant imen. Ukhtomskiy, the Sol Iletsk Machine Building Plant for Feed Production and the Uralmash Association.

The utilization of irrigated feed lands leaves a great deal to be desired. In Belgorod Oblast this work is being carried out in a more organized manner than in other regions. But there are also incidents of another type. The amount of precipitation in Orel Oblast has been extremely limited this year and still the waterings have been carried out on a tardy basis, with almost 90 sprinkling units remaining active for long periods of time.

At the present time, the results are being calculated mainly on the basis of hectares and tons, with not enough attention being given to the quality of the feed in all areas. In the Kabardino-Balkar ASSR, for example, according to data supplied by the agrochemical service, one third of the silage checked and almost one half of the vitamin meal turned out to be of low quality.

Such mismanagement is especially intolerable in view of the fact that life persistently requires quality improvements in our feed base. Emphasis must be placed upon greater achievements -- mastering basically new technologies and

new types of feed. On leading farms, where a firm program is being followed for achieving intensification, as required by the party, such innovations are being realized. Last year, the workers in Belgorod Oblast set a fine example: after radically reorganizing the feed preparation departments, they increased the proportion of succulent and coarse feed in the public livestock ration and reduced considerably the expenditure of concentrates. This experience must be disseminated on a more extensive scale. A requirement exists at the present time for making preparations for laying in maximum amounts of mixed silage, root crops and a corn grain mixture, or as it is referred to -- cornage.

The present period is especially favorable for creativity. Many of those factors which formerly restrained research and experimental work have receded into the past. The rates for the introduction and mastering of new developments are being determined mainly by the mood of the specialists, their readiness to carry out an experiment and accept a justified economic risk and by the ability, when required, to proceed in the face of accepted notions. At one time, the director of the Nazarovskiy Sovkhoz in Krasnoyarsk Kray, A.F. Veprev, was criticized considerably over the fact that the sovkhoz sowed grain crops with pulse crops for livestock feed and harvested them during the phase of milkywaxy or waxy ripeness. "How is this possible? You are ruining the grain" he was reprimanded on more than one occasion. Today it has been proven beyond a doubt: by planting haylage consisting of oats and peas, for example, when they have still not begun to dry out, the sovkhoz obtains more from a hectare than it would have if it had waited until both of these crops reached full ripeness. At the same time, this also without a doubt increased sharply the quality and nutritional value of the feed and lowered the production cost for it. The example set by the Nazarovskiy Sovkhoz has been followed by many farms in various regions of the country. The RSFSR Ministry of Agriculture has approved this experiment and is presently striving to ensure that it is disseminated to all areas.

It should be noted that psychological reorganization generally takes place at a slower rate than that required at the time. One fact remains clear to everyone: reliable storehouses are needed if we are to prevent a deterioration in the quality of the feed and reduce feed losses and today our farms have adequate means and resources at their disposal for ensuring that the requirements of the public herd are fully satisfied. Although nobody will argue this point, it nevertheless must be mentioned again and again that up to 30 percent of the silage inevitably ends up in hillocks and indeed by this point it has already been included in summaries and reports and taken into account when determining the feed balance. In the Altay Kray and Kurgan Oblast, the silage-haylage trenches are presently filled to less than 40 percent. Just as in the past, hay stacks continue to be a mandatory element of the rural landscape in almost all areas. They please poetic souls while specialists view them as an obvious anachronism. Nevertheless, there are still very few hay storehouses in the republic and almost none are to be found in such oblasts as Tula, Kuybyshev, Tambov and Saratov. It is time for all of the hay to be placed under a roof, a hay barn -- a simple structure. A large number of years is not required for correcting the situation. At the Leninskiy Luch Kolkhoz in Moscow Oblast, a hay storehouse with a forced ventilation unit was built in just I week.

The feed procurement operations have entered a decisive phase. It will be very difficult to correct problems after the harvest work has commenced. A maximum amount of work must be completed at the present time, in the weeks remaining before the mass harvesting of the grain crops. The brigade contract method must be strengthened and improved. We are still not making full use of the powerful force of a competition: on the farms, the competition results should be summarized on a daily basis, with each success and each incident involving disorganization or a lack of discipline being publicized.

The fate of the forthcoming wintering period is to a large extent being resolved at the present time. The party is striving to accelerate the development of our national economy and livestock husbandry is included among those branches in which the rates of growth must be very high. Work must be carried out today if these rates are to be raised so as to produce a maximum return. Such work cannot be postponed until tomorrow. This applies in full measure to the feed procurement specialists.

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#### LIVESTOCK FEED PROCUREMENT

FEED GRASS HARVEST OVERVIEW OF ASIATIC REPUBLICS

Moscow SEL'SKAYA ZHIZN' in Russian 8 Jun 85 p 3

[Article by M. Babintsev, S. Kim, I. Masaulov and N. Ruzanov, SEL'SKAYA ZHIZN' correspondents: "The Hay-Mowing Day Is Dear!"]

[Text] Uzbek SSR

The first mowing has been carried out on 320,000 hectares in the largest feed raising area in Central Asia. This made it possible to lay in 515,000 tons of hay ensilage, half the planned amount. Farms in Tashkent and Surkhan-Darya oblasts have met their targets in full. The feed procurement workers in Syr-Darya Oblast are also near their goal. The creation of mechanized brigades which perform all of the operations and their conversion to complete economic accountability and the collective contract made it possible to reduce the time required to harvest the grasses by an entire week.

Some good experience has been accumulated on the Kolkhoz imeni Gor'kiy and the Kolkhoz imeni Karl Marx in Tashlakskiy Rayon, Fergana Oblast. Despite the fact that the alfalfa crops are planted on completely pebbly fields, 135-140 quintals of hay per hectare are harvested there each year. Farms in Syr-Darya Oblast were the first in the republic to adopt active ventilation of the hay. Some specialists feel that this is not necessary, given the sunshine and high temperatures there. Experience has demonstrated the reverse, however. With active ventilation the hay retains it nutrients better. Farms in other oblasts should switch to this progressive technology.

There are also grounds for concern. Farms in Navoi and Kashka-Darya oblasts are mowing the grass very slowly. Far from all of them are familiar with advanced technology and progressive organization of labor.

Kirghiz SSR

The republic's feed procurers have to harvest 815,000 hectares of grass. They moved 114,000 hectares in the first moving. This is 26 percent more than last year but only 15 percent of the assignment. Rayons in 0sh Oblast are lagging. Only 82,000 of a planned 300,000 tons of hay ensilage has been laid in there.

In the Chuyskaya Valley--that is, in rayons of republic subordination--grass was harvested from 80,000 hectares in the first mowing, which is 79 percent of

the total area. The harvest is being performed most rapidly in Panfilovskiy Rayon, where the first mowing has already been completed. The grass is being mowed at a good pace in Sokulukskiy Rayon, the largest livestock producing rayon in the Chuyskaya Valley. Chuyskiy and Keminskiy rayons are lagging somewhat. They are located in the upper part of the valley, where these operations are begun later, although the hay mowing there is progressing more rapidly this year that it did last year.

A total of 20,900 tons of hay has been procured in the republic out of the 1,813,000 tons required by the plan. It should be pointed out that this feed is stocked mainly from the second mowing. The first mowing is used for hay ensilage. A total of 269,000 of a planned 1,368,000 tons of it has been stocked. Approximately 20 percent of the assignment has been completed. More than half of the assignment for stockpiling this valuable feed has been completed in the above mentioned Panfilovskiy Rayon. The mowing has not yet been started in Talas, Issyk-Kul and Naryn oblasts.

#### Tajik SSR

Farms in Kumsangirskiy Rayon, Kurgan-Tyube Oblast, are harvesting a good crop of alfalfa this year. The feed harvesting brigades of R. Mirzoyev, N. Davlyatov and M. Dodarbekov of the Kolkhoz imeni Lenin, for example, have obtained 320 quintals of green mass [per hectare] from two mowings, for example. They have now begun the third mowing and have decided to get at least eight during the season. Many farms in the oblast are on the second mowing. With 19,300 hectares of alfalfa, mowing has been performed on 32,200 hectares, which means that 1.7 mowings have already been performed.

Unfortunately, it is a different situation in other rayons—Shaartuzskiy, Kabodiyenskiy and Dzhilkulskiy. The first mowing has not yet been completed on individual fields there, and the feed procurement technology has frequently not been adhered to. It has been determined that all of the hay ensilage presently procured on the Kolkhoz imeni 50-letiya SSR in Kabodiyenskiy Rayon and ovkhoz No. 2 in Yavanskiy Rayon is unsuitable for feed. And there are many such examples in the republic.

Farms in Garmskiy and Kolkhozabadskiy rayons and Kulyab Oblast have come up with an important initiative for producing more feed than specified by the plan and for improving the quality. It has not been backed with action, however. The second mowing should have been completed long ago on 110,000 hectares of alfalfa, but the first mowing has only been completed on 70 percent ofthe area. Only a quarter of that was harvested on schedule. The reasons are well known: not all of the equipment is operating in the field yet, and the organization of the work performed by the machine operators suffers. Around 50 farms in the Vakhshskaya, Gisarskaya, Ob-Kiikskaya and Yavanskaya valleys left the grass standing too long and obtained a smaller mowing than during the same period last year. In a number of places low yields are also being obtained from third-year or older alfalfa fields because an undersowing of cereal fodder crops as fillers was not performed there in good time, and the fields are not receiving their fair share of water, fertilizer or care.

On one of the farms in Parkharskiy Rayon, dodder, a controlled weed, was "raised" on 60 hectares instead of alfalfa.

Such cases are not being assessed from a standpoint of principle everywhere. S. Murodov, director of the Avrora Sheep Sovkhoz in Leningradskiy Rayon, and S. Safarov, secretary of the party organization, were subjected to serious criticism at a recent plenum of the Central Committee of the Communist Party of Tajikistan.

"The situation has not improved," the sovkhoz livestock raisers complain in unison. "The machine operators continue to deviate from the technology for harvesting the grass."

#### Turkmen SSR

Alfalfa is the basic feed crop for animal husbandry in the republic. This crop occupies 95,000 hectares. The first mowing has been completed on the entire area. More than 80,000 tons of hay has been laid in, twice as much as at this time last year. Many farms are on their second mowing.

The hay mowing on the State Stock Breeding Farm imeni 9 Ashkhabad Commissars has been smoothly organized. A total of 27 quintals of hay has been obtained from each hectare. This means that 130-150 quintals [per hectare] will be procured from five to six mowings during the season.

A good grass harvest has been obtained on most of the farms in Chardzhou Oblast. The year's target for alfalfa hay procurement has been 14 percent met. A total of 35 or more quintals of hay per hectare have been obtained from the first mowing on the Kolkhoz imeni Khalturin in Chardzhouskiy Rayon and a number of farms in Sayatskiy and Khalachskiy rayons. The first mowing has been completed on most of the farms in Krasnovodsk Oblast, where just recently, until the large supply of water began to arrive through the Kara Kum Canal, not a hectare was planted to feed.

The grass harvest was poor on a number of farms, however. There is a particularly large number of such farms in Mary Oblast. They harvested only 15 quintals of hay per hectare from the first mowing. There have been cases of tardy care of the crops in the Murgab Valley, and the alfalfa stand is sparse.

The quality of feed procurement is causing special concern. The alfalfa is sometimes left standing too long and loses its nutrients. The first mowing was dragged out in Tashaus Oblast. Poor use of the mowing equipment was the main cause. Furthermore, 1,200, or more than 20 percent, of the available 6,000 tractor-drawn mowers and pick-up bailers are idle in the republic as a whole.

The hay mowing is in full swing in the republics of Central Asia. The kolkhoz and sovkhoz workers are attempting to stockpile more high-quality feed and create a solid foundation for increasing the productivity of the farms. This is how the work is going.

Harvesting of Cultivated and Natural Grasses

	Hectares Mowed in the lst Mowing (thousands)	As a Percentage of the
Uzekistan (A.I. Ikramov, min. er of agriculture)	321	29
Kirghizia (A. Savitakhunov, minister of agriculture)	114	15
Tajikistan (A.B. Tyuryayev, minister of agriculture)	110	35
Turkmenia (G.G. Gurbanov, minister of agriculture)	120	35

#### LIVESTOCK FEED PROCUREMENT

#### BELORUSSIAN FEED GRASS HARVEST OPERATIONS REVIEWED

Grass Meal Procurement Progress

Minsk SEL'SKAYA GAZETA in Russian 28 May 85 p 1

/Article by N. Zharko, deputy chief of the State Inspection for Procurements of Field Crop Husbandry Products of the BSSR Ministry of Procurements: "An Important Component"/

Text/ The agricultural workers are commencing an important campaign -- the "green" barvest and feed procurements. Grass meal production occupies a considerable proportion in the structure of this feed. It is a most important component for the production of mixed feed. The addition of grass meal to mixed feed raises the quality of the feed and reduces the use for this purpose of a most important product -- grain.

The 1985 plan for the republic's kolkhozes and sovkhozes raised the task for supplying the state resources with grass meal to 150,000 tons, or 6,000 more tons than the planned task for 1984. At the present time, in the oblasts and rayons and on the farms, the preparation of equipment for obtaining grass meal is nearing completion, the brigade contract method is being introduced into operations and the conditions for paying for the production of this product and for selling it to the state are being developed.

There are many farms throughout the republic where, from year to year, the work of organizing the production and sale of grass meal is well organized. This includes, for example, the kolkhozes Progress and Rodina in Grodnenskiy Rayon and Progress in Mostovskiy Rayon, the sovkhoz Bor in Novogrudskiy Rayon and others. Fine work organization, strict observance of all of the technological regimes, effective control over the quality of the output and use of the brigade contract method are enabling these and other farms to fulfill annually their planned production volumes for grass meal. At the same time, on a number of farms proper attention is not being given to the important work remaining to be carried out in the future. An especially alarming development is the fact that at some kolkhozes and sovkhozes in Berezovskiy, Ivatsevichskiy, Lyakhovichskiy, Orshanskiy, Miorskiy and some other rayons, plans are not being formulated for the use of leguminous grasses for grass meal production. Just as in past years, the farms in Drogichinskiy, Maloritskiy, Tolochinskiy, Dubrovenskiy and Shumilinskiy rayons have no plans for producing even one ton

of this product from leguminous grasses. Last year, these farms did not sell one ton of 1st class grass meal to the state.

There is still one other alarming fact. On a number of farms, the units to be used for preparing grass meal are still in a state of disrepair. There are two such units at the Kolkhoz imeni Suvorov in Postavskiy Rayon and both are inoperable, despite the fact that the farm raised its sale plan for grass meal to 200 tons. Of five such units in Ushachskiy Rayon, only one is in good working order and in Sharkovshchinskiy Rayon only four of 11 units are operable. Throughout the republic as a whole, only 1,312 of 1,519 such units are in good working order. On a number of farms, teams have still not been formed for servicing these units and there is a shortage of 160 machine operators.

As is known, the value of grass meal is determined by the amount of digestible protein and carotene in it. The purchase prices and the norm for the counter sale of mixed feed are established in accordance with these indicators and also based upon the cellulose content. Compared to 3d class, the sale to the state of 1 ton of 1st class grass meal furnishes a farm with 70 additional rubles and 0.6 additional tons of mixed feed, with the expenditures for its production remaining the same. A bonus in the amount of 7.5 rubles per ton, regardless of the class of the meal, is established for the purchase price for granulated and briquetted products. In short, the carrying out on each farm engaged in the production of grass meal of a complex of measures aimed at creating the logistical base for its production serves as a guarantee that high quality products will be obtained.

Grassland, Pasture Productivity

Minsk SEL'SKAYA GAZETA in Russian 30 May 85 p 2

Article: "Importance of Not Wasting Time"/

/Text/ Natural feed lands constitute 36 percent of the agricultural land in use throughout the republic. It should be borne in mind that the highest productivity from such land can be realized only if the grassing and regrassing of the areas is carried out prior to 1 July. Grasses sown during this period are better able to utilize the spring supplies of moisture, they develop in a strong manner, they produce high fodder yields during the year in which sown and they are less likely to perish during the wintering period.

Fine experience in organizing grassing and regrassing operations has been accumulated at the Korelichi plant breeding establishment in Korelichskiy Rayon. Here there was no reduction in the fodder yields during the year in which work was carried out aimed at restoring the grass stand. This results from the fact that the grasses are being sown in a high quality manner and during the best periods.

However, many of the republic's kolkhozes and goskhozes are not devoting proper attention to the grassing and regrassing of feed lands and they are not carrying out this work during the best periods. Throughout the republic as a whole, only 30,600 hectares of haying and pasture land, or 24 percent of the plan, had been

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Key:

- 1. Progress in grassing and regrassing 6. Pastures created and allotted in of haying and pasture lands at kolkhozes and sovkhozes throughout the of plan. republic by 27 May 1985
- 2. Grassing (in percentages)
- 3. Compared to plan
- 4. Compared to schedule
- 5. Regrassing (in percentages)
- vicinity of farms (in percentages
- 7. Brest
- 8. Vitebsk
- 9. Gome1
- 10. Grodno
- 11. Minsk
- 12. Mogilev

regrassed by 27 May. This work is being carried out extremely slowly on farms in Mogilev, Grodno and Vitebsk oblasts, where the task has been fulfilled by only 14-23 percent and the schedules -- by 43-57 percent. The situation is even worse with regard to work organization for bringing about radical improvements in feed lands in individual rayons. For example, the kolkhozes and goskhozes in Gomelskiy, Kletskiy, Klimovichskiy, Krasnopolskiy and Chausskiy rayons have still not carried out grassing work on as much as 1 hectare.

On a number of farms, the preparation of areas for grassing is being carried out by contractual organizations at low rates and in a low quality manner. For example, at the Dmitrovichi Sovkhoz in Berezinskiy Rayon, the plowing of more than 50 hectares of degenerated feed land was carried out in a poor manner by PMK-63 /mobile mechanized column/ of the BSSR Ministry of Land Reclamation and Water Resources.

In some rayons and on some farms, highly productive pastures are not being created in the vicinity of farms. In some rayons, the requirements for such pastures are being satisfied by less than 70 percent. Time must not be wasted and such pastures must be created through the sowing of perennial grasses and by improving the natural feed lands, so as to ensure that this year there will be not less than 0.5 hectares of such pasture land for each cow and heifer.

A check carried out in the various areas has uncovered incidents involving a lack of control over the course of this work. For example, the Agricultural Administration for Berezinskiy Rayon was very late in supplying the farms with the schedules for the grassing and regrassing of feed lands. This year, just as in the past, organic fertilizer was not applied during the carrying out of this work. By the day the check was carried out in the rayon, a top dressing

had still not been applied to 1,060 hectares of improved and natural haying land. Very low dosages of mineral fertilizer were applied to improved haying and pasture lands at the sovkhozes Usha, Poplavy and Pervomayskiy or at the kolkhozes Gvardeyets and Pamyat' Lenina.

The farms in Mogilev Oblast undersupplied each hectare of feed land, compared to the computed norms, by 42 kilograms of mineral fertilizer in active agent, Grodno Oblast -- 39, Minsk Oblast -- 30, Gomel Oblast -- 29, Vitebsk Oblast -- 28 and Brest Oblast -- 22 kilograms.

In the interest of achieving the planned yields, an additional top dressing in the form of a full dosage of mineral fertilizer should be applied to the pastures following the first cutting and the second and third grazing cycles.

The agricultural administrations of oblast executive committees and rayon executive committees must investigate on an urgent basis the reasons for this falling behind and they must do everything possible to correct the situation with regard to the grassing and regrassing of haying and pasture lands. All of the mineral fertilizer allocated for the feed lands must be applied without fail and all work must be carried out during the best periods. Importance is also being attached to ensuring that all pastures having overgrown grass stands are cut down immediately.

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#### LIVESTOCK FEED PROCUREMENT

PROGRESS, PROBLEMS OF FIRST HAYCUTTING IN VARIOUS REGIONS

Moscow SEL'SKAYA ZHIZN' in Russian 23 May 85 p 1

[Editorial: "The First Cutting"]

[Text] Cutting the hay—what joyful, yet difficult work! It has always been not only a time for harvesting, but a time for celebrating as well, a time when an entire village would go into the fields to get the crop in as quickly as possible and to give the best possible account of itself in the process, a time to make sure the livestock was provided with adequate supplies of feed and to lay a solid foundation for future increases in milk yields and weight. And so now the good farmers are inspecting and making early assessments of their hay fields, readying their machinery and storage areas, getting their people trained and in the spirit to help with the harvest and quickly getting down to business. The harvest is already under way in the southern part of the country—the teams and links of machinery operators are now at work on the alfalfa. The first cutting is under way.

Now, the first cutting is perhaps the most important. This is not only because it is the primary cutting, the cutting that yields the biggest share of the hay silage. The fact is that the speed with which the first cutting is completed will to a great extent determine the amount, the rates and the quality of the field operations which follow and the entire feed-preparation process. To get the first cutting done in a timely way means you are going to get large volumes of good-quality hay and nutritious silage, clear the fields and meadows of the cut crop in a short period of time, get the soil irrigated and fertilized on time and thereby to insure at a minimum one more cutting. This is particularly important now, what with the fact that the feed that is now in preparation is creating the basis for both the final assault on livestock targets for the five-year-plan period and a strong start on the program for the next five-year plan.

It is with precisely this understanding of the importance of the operations now under way that the managers and specialists of a great many farms and rayon and oblast agroindustrial associations are approaching the organization of their hay-cutting operations. In Izmail'skiy Rayon in Odessa Oblast they have resolved to cut 6500 hectares in no more than 10 working days. They know from their own experience that if you don't get the hay in in May, you're not going to be able to make up for what you lost in June. Feed processors in Osh Oblast have resolved to get at least five cuttings, the leading farms in this area engaged in an effort to build up a 1½-2 years' reserve of feed. Workers

in the villages in the vicinity of Alma-Ata have under taken the obligation to prepare at least 21 quintals of feed units per head of livestock. And these examples are multiplied time and again with each passing day. But there are other examples which give us an entirely different view of things.

Both science and practical experience tell us that you have to begin harvesting when the grasses get their tassels and the legumes start to bud. This is the only way to make sure the hay is cut when the grass begins to blossom—the phase after which the food value and the feed units and protein per hectare begin to drop sharply. The nutritional value of the hay and silage prepared last year on kolkhozes and sovkhozes in Estonia, for example, proved to be considerably lower than that prepared by farms in Lithuania. And one of the big reasons for this difference is the delay in starting on the first cutting: while the Lithuanian farmers had completed their cutting in June, the first of July saw the Estonians having completed their cutting on only 65 per cent of their crop area. Farmers were late with the first cutting in a number of oblasts in the Russian Federation, Ukraine, Kazakhstan, Georgia, Kirghiziya and Turmeniya. Cutting operations were particularly slow in Uzbekistan, where the first cutting had been completed on only 37 per cent of the crop area by this time. So it comes as no surprise that the republic found itself with low feed reserves and declining production on the farms.

Unfortunately, we are seeing a repetition of last year's mistakes again this year. "Let the grasses grow a little more," "Let them build up a little more bulk"—these are some of the things you'll usually hear in justification of their performance from those who are slow in getting started on the first cutting. But this point of view is an indication, first of all, of the low level of technical competence on the part of these people, their ignorance of the scientific work which has been done in this field over the past few years and their desire to live and work as they have always done in the past. Specialists with our rayon and oblast agroindustrial associations and the people of our scientific institutions have the important task of getting the information out on the latest in methods of feed preparation, promoting the adoption of these methods and of working to insure rigorous, universal adherence to the recommended grass-cutting schedules. Operations organized in accordance with the latest thinking and strict adherence to the most recent scientific recommendationsthese should be the standing rules on each and every kolkhoz and sovkhoz. Any delay in starting the first cutting or failure to complete it on schedule will result in a seriously incomplete harvest, lower quality of what is harvested and what in fact amounts to the loss of an entire cutting. And the manager who permits any delay in the cutting of his grass crops is not going to be letting his own cow go without feed, but he will be condemning the whole herd to a hungry winter. The calls to account for this should be correspondingly serious.

The rates at which we prepare our feed and the quality of the work we do are going to depend first and foremost on the condition of our equipment and the way we use it. Maintenance and repairs have been performed in an exemplary manner in Donetsk, Dnepropetrovsk, Ivano-Frankovsk and L'vov oblasts in Ukraine. But in Kiev, Zhitomir and Khmel'nitskiy oblasts there are still hundreds of hay mowers which are not yet ready to go into the fields. Still requiring repairs and maintenance is a great deal of forage cutting machinery in Kyzyl-Orda, Aktyubinsk and Taldy-Kurgan oblasts of Kazakhstan and in Tambov, Orlov,

Kursk and a number of other oblasts of the RSFSR. This situation simply cannot be tolerated. Goskomsel'khoztekhnika [State Committee on Agricultural Equipment] officials must take effective steps to insure rigorous adherence to contract obligations governing work deadlines and the quality of repairs to be made on feed-gathering machinery and that hay mowers, pick-up and pressing machines and fod-der-cutting combines are fully ready and provide safe, failure-free operation.

Hay-cutting operations are beginning with the perennial grasses. But they very quickly move on to the natural grasslands. It is important that these areas be given attention so as to insure the machinery easy access. This requires manpower and expenditures of resources, of course, but it's better to put forth the effort and expend the resources once and for all to improve the harvests than every year to have to scrape the grass off the fields every year by hand. Particularly since improvements to the natural grasslands not only makes it easier to mechanize operations in these areas but also sharply increases the yields. Unfortunately, however, these important steps are not always being taken. Last year, for example, a plan for major improvement of natural feed-grass lands in the Udmurt ASSR and Khabarovskiy Kray was implemented over only 3 per cent of the area involved and in Tomsk, Irkutsk and Perm oblasts over only 5-7 per cent of the land. Need we really go into what a negative impact this has had on the feed-grass harvests in these areas?

Since they want to do everything they can to build up their reserves of coarse and succulent feeds, farmers on our leading farms always try to put up hay, fodder and silage of only the highest possible quality rich in all the necessary nutrients. With this in view they are employing such proven methods as drying the grass by means of active ventilation, processing ground hay and grass cuttings and adding chemical preservants to the material. These methods have been adopted to good effect in Latvia and Estonia, where the active ventilation method was used on 58-60 per cent of the hay processed last year, with 71-85 per cent of the crop being pressed. At the same time, only 11 per cent of the crop was pressed in Ukraine, 17 per cent in the Russian Federation. Disregard for improved feed-preparation processes or failure to employ these methods properly led to a situation in which a good part of the hay on the farms in Moldavia turned out to be of poor quality; in Armenia the silage was the problem, in Turkmeniya the grass meal. A comprehensive set of measures must be effectively taken this year to avoid any repetitions of these mistakes and to insure that the feed prepared is of only the highest quality.

It is also critically important to begin even now to get ready for the feed storage phase of harvesting operations. But here, too, things are not as they should be in a number of places. Only 16 per cent of our hay is stored under a roof, almost one-third of the fodder and silage in trenches, pits and mounds, which increases nutrient losses sharply. At the same time, we are seeing plans for construction of feed storage facilities frequently not carried through, particularly in Kazakhstan, Moldavia and Armenia. So it is no coincidence that the quality of the feed produced here is low as well.

May is drawing to a close. Each new day sees the hay being cut over larger and larger areas. More and more people are going into the meadows and fields of perennial grasses. To see that this manpower is organized efficiently, to make

extensive use of competition and to form feed-cutting teams working on a permanent contract basis, responsible for harvesting the fodder and the land to which they are assigned, well supplied with all machines and equipment and provided with everything they need to perform any operation quickly and efficiently, is to a great extent to guarantee the success of a hay cutting—one of the most critical of all agricultural operations.

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#### LIVESTOCK FEED PROCUREMENT

#### KAZAKH FEED PROCUREMENT DEFICIENCIES INDICATED, TASKS OUTLINED

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 30 Jun 85 p 1

[Article under the heading "In the Kazakhstan Communist Party Central Committee and Kazakh SSR Council of Ministers": "Immediate Measures to Intensify Rates of Feed Procurement on Republic Farms in 1985"]

[Text] The Kazakhstan Communist Party Central Committee and Kazakh SSR Council of Ministers have noted that republic party, soviet and agricultural agencies and agroindustrial associations, in carrying out the resolutions of the April (1985) CPSU Central Committee Plenum with consideration of the particular weather conditions this year, have mobilized the efforts of agricultural laborers to strengthen the fodder base of stockraising, to accumulate the maximum amount of coarse and succulent fodder for the forthcoming winter.

Many sovkhozes and kolkhozes have sown fodder crops promptly and well; they have expanded the area sown to grasses, root and fruit crops, set up proper care of them, and begun hay harvesting in an organized manner.

At the same time, delay and disorganization have been evident in the conduct of this important campaign in certain oblasts and rayons. Individual farms have not taken the steps necessary to convert feed production to an independent branch and have not fully prepared or included in this work the available hay-mowing equipment. Not all feed procurement brigades and links are fully manned. Conditions have not always been created for highly productive labor. Socialist competition is poorly developed and the collective contract is being introduced slowly.

As a result, grasses deteriorate from standing too long in a number of places; they are not harvested smoothly and continuously; delays are permitted between cutting and ricking. Grass harvesting on unproductive land has not been organized; the rural populace and workers in cities and rayon centers have not been mobilized for feed procurement.

Feed procurement is especially slow on farms in Dzhezkazgan, Semipalatinsk, Taldy-Kurgan and Karaganda oblasts. Vostochno-Kazakhstan, Turgay, Severo-Kazakhstan and Kzyl-Orda oblasts are lagging in hay harvesting equipment repair.

Certain sovkhozes and kolkhozes have not set up the care of silage and other fodder crops well, are using irrigation equipment poorly and are not making

proper use of progressive methods of procuring, storing and processing fodder. Silage and haylage storage facility construction is unsatisfactory; sponsoring industrial enterprises and construction organizations have not been enlisted in this work.

The Kazakh SSR ministries of agriculture, fruit and vegetable farming, the Kazakh SSR State Selkhoztekhnika Committee and their local agencies have rendered sovkhozes and kolkhozes inadequate assistance in organizing hay harvesting, feed procurement equipment maintenance and supplying farms with the needed spare parts and materials. The Kazakhstan Communist Party Central Committee and Kazakh SSR Council of Ministers have obligated the Kazakhstan Communist Party obkoms and raykoms, oblispolkoms and rayisponkoms, agroindustrial associations, Kazakh SSR Ministry of Agriculture and Ministry of Fruit and Vegetable Growing, Kazakh SSR State Selkhoztekhnika Committee, Glavrissovkhozstroy [not further identified: main administration for rice sovkhoz construction] and the leaders of kolkhozes, sovkhozes and other state agricultural enterprises to immediately take additional steps to ensure a sharp increase in the tempo of hay harvesting in order to achieve hay, haylage and high-quality grass meal plan and assignment fulfillment prior to the start of the mass harvest on each farm and in each rayon and oblast.

Beginning 1 July 1985, there will be a month-long feed procurement campaign. The oblasts have been set assignments for collecting hay, haylage and grass meal.

With a view towards meeting them unconditionally, all feed procurement equipment is to be enlisted in this work and its highly effective use is to be ensured. Brigades and links are to be fully manned, effective competition among them is to be developed, specific assignments are to be communicated to each feed procurement worker, and performance is to be monitored. Greater use is to be made of moral and material incentives, the collective contract is to be universally introduced, and the production, cultural and personal services conditions for workers engaged in feed production are to be improved.

We need to ensure the enlistment of the able-bodied populace of the cities, villages, rayon centers and sponsoring organizations in harvesting the grasses. Grass harvesting by hand is to be organized in sectors difficult to reach. Particular attention is to be paid to feed quality, to following proper procurement technology, to avoiding losses.

We need to intensify work on caring for areas sown to feed crops being cultivated on plowed and irrigated land. Watering and top dressing are to be done promptly, so as to achieve the highest possible harvests from irrigated areas and to make at least 4-5 cuttings. Maximum use is to be made of opportunities for supplementing feed stocks through repeat and after-harvest sowing of feed crops.

Repairs to and construction of haylage and silage storage facilities, feed preparation plants [kormotsekh, kormokukhnya], are to be completed promptly; fodder preparation for feeding is to be set up on each farm.

It is proposed that the editorial staffs of republic, oblast and rayon newspapers and the Kazakh SSR State Television and Radio Committee provide continuous coverage of the month-long campaign to procure feeds and the work experience of the best farms, brigades, links, and leading workers.

#### LIVESTOCK FEED PROCUREMENT

EQUIPMENT SUPPLY LAG, OPERATIONAL DEFICIENCIES NOTED

Moscow PRAVDA in Russian 23 May 85 p 2

[Article by Ye. Yevgen'yev: "For the Feed Grain Field: Agricultural Survey"]

[Text] Spring quickly changes the location of sowing. Its center has already shifted to the Urals, to Siberia and the virgin land areas of Kazakhstan. According to data from the USSR Central Statistical Administration by May 20 the spring crops in the collective and state farms occupied 93.3 million hectares, including 52.5 million hectares in grains and leguminous crops (excluding corn). This amounts to 66 and 61 percent respectively of the allotted areas. Potatoes have been sown on 1.9 million hectares and vegetables on 1 million hectares. The sowing of corn, sugar beets, rice, flax, soy beans and groats is continuing. Work on the feed grain fields is proceeding.

Time flies. In the south of Uzbekistan the equipment operators have already begun harvesting the winter barley. Haying is also underway. It has arrived in Moldavia, the Transcaucasian republics, Central Asia, the North Caucasus and the region along the Volga River. Soon the green harvest will move to other regions of the country.

The advanced farms of Azerbaijan and the Moscow and Leningrad oblasts, for example, have repaired the feed harvest equipment almost completely, established specialized production teams that are paid on the basis of the quantity and quality of fodder produced and prepared facilities for storing it. It is not like that everywhere, however.

In the state and collective farms at the beginning of May 15-20 percent of the tractor-pulled mowers, pick-up balers, rakes and a significant number of feed-harvesting combines were still waiting to be repaired. This is more than at the same time last year. The repair rate is especially low in Kazakhstan and the Kalinin, Kirov, Volgograd and Perm oblasts. Let us take, for example, Turkmenia. Haying has been going on for about two weeks. To this date, however, almost one-third of the haying equipment is not functioning. Here, as in other republics and oblasts, the organizational disorder and sluggishness of the engineering service had an adverse effect. The assistance from Selkhoztekhnika [Agricultural Equipment Association]

is feeble, and there are breakdowns in the supply of spare parts to the farms. Industrial enterprises such as the plant imeni Ukhtomskiy near Moscow and the Belotserkov agricultural machinery plant have failed to make deliveries on time and created difficulties in preparing the equipment.

Equipment that is poorly fixed or not ready on time often lets the equipment operators down. Last year, for example, calculated on the basis of a standard drying unit, the farms of the country received on the average 158 tons of dried feeds for the season while the standard is 400 tons. In the Ukraine 113 tons of hay were processed with one pick-up baler and in Tajikistan 170 tons, but what was required was 240 tons. This is where there are reserves, where there are losses of time, which means [losses] of the grass harvest.

Reports on the low productivity of equipment are still coming in. Consequently the appropriate services of collective and state farms need to increase their attention to the weak sector of production and ensure a rise in the productivity of labor. The problem is an important one, involving the saving of enormous resources, and the machine builders simply cannot hold themselves aloof from its solution. In recent years they have improved the supply of equipment to the farms, which has made it possible to raise somewhat the level of mechanization of feed production. At the same time there are still more than a few complaints about Minzhivmash [USSR Ministry of Machine Building for Animal Husbandry and Fodder Production] and Minselkhozmash [USSR Ministry of Tractor and Agricultural Machine Building], because the village's need for equipment is being satisfied poorly. The Gomselmash plant has failed to deliver a lot of feed-harvesting machines and storage trailers, and those that do reach the farms are of very poor quality. Right now, for example, thousands of KSK-100 combines are unable to go out mowing.

Because of lack of adaptability of the services and enterprises of Minzhivmash (Minister K. Belyak) and the complacency and sometimes even negligence of individual executives in this ministry and its subdivisions, the generational change in feed harvesting machines and other equipment is proceeding very slowly. For example the GP-14 rake has been produced for more than 20 years, the GVK-6.0 for 18 years, the PK-1.6 harvester-stacker and KUF-1.8 mower 12 years.

Could it be that the equipment is not obsolete, that it meets the demands of the present time? No. Agricultural specialists rate it as unproductive and uneconomic. Meanwhile the output of new equipment is put off from year to year. Take, for example, the rotating rake-agitator. Without it you cannot obtain high quality haylage and hay. Talk about producing such units has been going on for many years, but the machine builders are lagging in mastering the agitators.

And how necessary to the rural workers an automatic system for regulating the consumption of fuel when preparing grass meal is. At times an enormous quantity of fuel is burning uselessly in the fireboxes of the AVM [not further identified].

Work on creating machinery for preparing mixed silage and equipment for adding preservatives to feed, especially at permanent storage facilities, is proceeding slowly.

The farms are also poorly supplied with large-capacity transportation equipment. For many years now the question of the necessity for producing trailers with a more capacious body has been raised persistently. Even so, however, the project has not gotten off the ground.

In a word, the farmers are waiting for the machine builders to produce economic and highly productive equipment for feed production.

The volume of feed procurements is increasing significantly, and the demands for its quality are rising. And assistance to the village in the form of spare parts and equipment for processing feed is necessary not only in the future but above all right now.

Because of the prevailing weather conditions the perennial grasses are stunted in a number of places. It is important to harvest them as hay in a timely fashion in order to obtain a good second and subsequent crops. Under these circumstances the RAPO councils must strengthen supervision over all sectors of production and ensure that every farm is fully equipped for the haying, conducts it in an organized manner and gathers a sufficient quantity of high quality feeds. It is important to reinforce attention to the construction of haylage and silage structures and to make wide use of active ventilation and other progressive methods of preparing feeds.

The large-group method of harvesting grasses ensure high rates of work. In this method the harvesting and transportation equipment is concentrated in large areas. Everywhere that the harvesting of grasses has begun the cost accounting sub-units operating on the principle of a collective contract have made a good showing.

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#### LIVESTOCK

#### COSTS OF REEQUIPPING LIVESTOCK COMPLEXES STUDIED

Moscow SEL'SKAYA ZHIZN' in Russian 19 Jun 85 p 2

/Article by A. Starkov, candidate of economic sciences and deputy director of Giproniselkhoz Institute: "Economics of Modernization"/

Text/ Although many large industrial-type livestock husbandry farms and complexes have been built throughout the country, the principal proportion of products being produced today is being furnished by small enterprises -- not milk or meat factories, but rather small plants and departments. Thus, according to registration data, more than one half of the dairy farms at the present time were developed for the maintenance of 200 or less cows, while farms having 800 or more cows constitute only 4 percent. More than one half of the cattle farms are not completely mechanized, on one out of four the farmyard manure is removed and on one out of six farms the cows are milked manually. At times there is an absence here of substantial feed storehouses, delivery sections, milking units and other installations considered to be of importance for continuous operations. A conventional farm consists only of several buildings which are more or less compactly located for the maintenance of animals and auxiliary installations which do not have a common technology or even expensive hard-surface floors.

This is why, in addition to economizing in the use of capital investments, a need exists for carrying out an extensive and all-embracing modernization program for the livestock farms. Over the course of the next few years, this will be the chief means for raising the technical and cultural-domestic level of farm production and introducing modern scientific-technical achievements and leading experience into the branch. In the process, importance will be attached to achieving a high return from the resources invested in farm modernization. During a recent conference in the CPSU Central Committee on accelerating scientific-technical progress, emphasis was placed upon the fact that just any type of production renovation will not suffice. Rather, it must be a type that is accompanied by the introduction of leading equipment and produces a high economic and social effect.

Quite often this condition is not taken into account. A random inspection has revealed that at the present time the specific expenses for farm modernization and expansion are not lower but rather higher than those required for the construction of new installations. In the face of high specific capital investments, new construction is often carried out under the guise of modernization. Such resources are not recovered.

Over the past 5 years, the specific (per individual livestock billet) expenses for technical re-equipping, modernization and expansion of farms increased from 636 to 936 rubles in facilities for cattle and from 252 to 369 rubles in hog raising facilities. And today the average expenditure of resources throughout the country per unit of increase in capability, when expanding and modernizing dairy farms amounts to 75 percent and for hog raising farms -- 123 percent compared to the construction of new complexes.

When evaluating the effectiveness of modernization, a comparison is usually made between the additional expenses borne for existing and newly introduced livestock billets and the expenses for the construction of a new farm of the same capability. Thus it is maintained that it is possible to obtain two, three and even five times more livestock billets using these same funds. But new construction provides us with additional capabilities, whereas the existing type of modernization does not. Actually, the funds are expended mainly for the modernization of buildings and structures, engineering lines of communication and public amenities -- the passive funds. Reimbursement for the additional capital investments for modernization is achieved here as a result of a reduction in the number of workers and in the wage fund, with the productivity of the farm "machine equipment" and that of the animals themselves depending very little upon the equipment, technology or construction structures used. Indeed, the chief factors for raising the productivity of the livestock continue to be the creation of a strong feed base, improvements in the herd and increased technological discipline.

During the preceding decade, not more than one third of the capital investments were used for the construction of new livestock complexes, with fixed capital being used for the modernization and expansion of existing farms. In swine husbandry, for example, only 11 percent of the overall number of newly introduced livestock billets were located at complexes. The remaining areas were introduced into operations at existing farms. An even smaller proportion of the overall number of livestock billets introduced into operation is found at cattle complexes. A large portion of the capital investments is used for the modernization and expansion of existing farms. As is known, the rates of growth for output production, especially milk, turned out to be not very high during these years.

The reason for the above would seem to be the wrong selection of the modernization plan. At the present time, many farms include construction projects with work volumes that are being carried out almost continuously. Today they erect a new cow barn or renovate an existing one, the following year -- a calfhouse and subsequently a feed preparation shop or feed storehouse and so forth. In the process, the construction as a rule is carried out in an incomplete manner. In many instances, only the livestock maintenance facilities are erected and generally in the absence of plans. Only weak control is exercised over the planning and construction by a committee of experts and the financing organs. Thus it comes as no surprise to learn that the norms for technological and construction planning are often violated here.

The effectiveness of the various modernization measures differs substantially. The greatest results are achieved through the technical re-equipping of farms, the mechanization of production processes and the replacement of manual labor

by machine labor. In the process, labor productivity can be raised by a factor of two or more, the number of workers reduced and production costs lowered. It must be remembered however that the mechanization of farms must be complete and be accompanied by an improvement in the technology and by the introduction of more efficient forms for labor organization.

In the case of technical re-equipping of farms, a large portion of the funds is used for the active capital. Unfortunately, this most advantageous type of fixed capital replacement is by no means being employed on all of the farms. We have not been able to find examples of the technical re-equipping of farms in the so-called pure form. They are usually found in a state in which the renovation of equipment must be carried out simultaneously with the construction of subsidiary-auxiliary installations and this is an inefficient type of fixed capital replacement. Modernization is accompanied by a radical reorganization of production proper, with buildings and structures being renovated and improved in addition to the equipment. The modernization of dairy farms often costs up to 1,400 rubles per livestock billet. Meanwhile, according to our computations, this work produces results only in those areas where the additional capital investments for modernization do not exceed 20-30 percent of the cost of construction for a new and similar type farm, that is, 400-600 rubles per livestock billet.

Capital investments in the modernization of farms are reimbursed more rapidly in those areas where this process brings about an expansion in production and an increase in capabilities. But farm expansion at the present time is usually accompanied by the modernization of existing buildings and the construction of installations of a subsidiary or auxiliary nature, both for additionally introduced capabilities and for existing ones. The higher such expenditures are, the less effective will be the use of additional capital investments. In this regard, investments for farm expansion (per increase in capability) exceed considerably the expenses for new construction.

This is why all of the planned measures and the amounts of additional capital investments for new construction should be validated in detail prior to commencing the technical re-equipping, modernization or expansion of existing farms. In this regard, it will be necessary to establish the maximum normative values for specific capital investments in each type of reproduction of fixed capital and capabilities. Together with the republic planning institutes, Giproniselkhoz is presently engaged in completing this work.

By no means is it economically advisable to expand and modernize all of the operating farms. For example, there would be no advantage to expanding dairy farms for less than 100 cows if the conditions are not available for increasing the sowings of forage crops or for intensifying feed production. It makes no sense to expand farms which are located too close to housing zones (the sanitary rules would be violated) or even small farms which are located at considerable distances from the transport arteries. In any case, there should be a thorough examination and detailed technical-economic substantiation of the need for modernization. This process must be accompanied by a strengthening of the feed base and an improvement in the herd.

Farm modernization work must be linked to the plan for developing a farm. The absence of such plans often results in continuous modernization, wherein as a

result of a change in a farm's specialization, one alteration after another is carried out. Many examples could be cited revealing how the same farm was modernized several times: initially from stanchion maintenance to loose housing maintenance and subsequently from loose housing maintenance back to stanchion maintenance. It sometimes happens that a newly built farm for the raising of heifers is modified for the production of milk, or a sheep farm is changed into a hog farm and so forth.

An expansion in the work concerned with the technical re-equipping, modernization and expansion of existing farms represents an important trend with regard to further strengthening the 'ogistical base of livestock husbandry. In order to raise the effectioness of the capital investments being used for this purpose, it will be necessary to exercise control over this important process and raise responsibility at all levels for working out the solutions for farm modernization and for ensuring the soundness and effectiveness of the planning solutions. The modernization and expansion of livestock husbandry farms should be carried out in accordance with planning and estimates documentation that calls for them to be converted over gradually into complexes of the industrial type. The conversion of livestock husbandry over to an industrial basis, as emphasized on more than one occasion in decisions handed down by the party and government, represents the principal direction to be followed for developing the branch.

7026

LIVESTOCK

#### OPERATIONAL EFFICIENCY OF LARGE LIVESTOCK COMPLEXES QUESTIONED

Moscow SOVETSKAYA RUSSIYA in Russian 5 Jun 85 p 1

[Editorial: "The Livestock Industry"]

[Text] Months before the next party congress is the time to begin to analyze what we've accomplished, to make needed corrections and adjustments in the directions in which we're moving. As was pointed out at the April (1985) plenum of the CPSU Central Committee, the most urgent task in the field of agricultural production now is to make sure we are making full use of capacities, the potential still untapped by our agricultural enterprises and their industrial partners. What we are referring to here is the need to make certain that each and every ruble invested in modernizing agricultural production operations and in the social transformation of our rural areas yields a maximum return.

Livestock facilities are among the most important production areas on our kolkhozes and sovkhozes. They are now accommodating millions of head of the country's livestock. Worthy of particular attention, of course, are the large livestock complexes. We have invested enormous amounts of money in them, and, rightly, we are relying on them in our efforts to intensify animal husbandry operations and industrialize the industry. Industrialization has finally proven itself on our poultry farms. Farms specializing in cattle raising present a more complicated picture, but here, too, we see the steps being taken in the direction of assimilating planned capacities yielding their results as well.

Last year saw these complexes produce 500 kilograms more milk per cow than the average for the republic, 664 kilograms in the case of the nonchernozem region. Labor costs per hundredweight [tsentner] of milk on these complexes are substantially below the republic average.

The success of large-scale livestock production is gratifying. But in evaluating it on its merits, we should not be praising it too highly. When we look at the republic as a whole, we can see that the capacities available to our live-stock dairy and feeding facilities and swine combines are not yet being fully utlized. Milk yields on the large industrial farms in Tambov, Irkutsk and Orenburg oblasts are still below those being turned in by small and medium-size farms—2000-2100 kilograms per cow per year.

In attempting to justify these poor results, you will most frequently hear the people on these farms which lag behind refer to the mistakes and shortcomings

of the past. That there really were mistakes and shortcomings in the past noone is going to deny. But enough time has certainly now passed for them to
have been remedied. The problem is that after initially meeting with a lack of
success, the chiefs of a number of agricultural administrations simply lost interest in the new facilities which they had been so proud of such a short time
before and failed to take any meaningful new steps to bring them on line at full
capacity. The dairy herd on complexes in Novogorod, Pskov and Perm oblasts is
still only three-fourths or little more of the size it should be, 61 per cent of
what we should be seeing in the Checheno-Ingush ASSR. A good part of the these
costly facilities is virtually empty.

It's been years now, and we're still seeing construction projects which remain unfinished and design mistakes which remain uncorrected. Half the large dairy farms do not have facilities for dry cattle, over one-third still have no calfpens for prophylatic treatment and two-thirds have no hard-surface approach roads. As a rule, i will be only a few hundred meters from the livestock facilities to the nearest public road, but during the spring and autumn when the roads are bad these few hundred meters are difficult to negotiate. This is an obstacle to full mechanization and makes it difficult to deliver feed and ship the products out. You spend millions and then cut your return from this investment sharply just to try to save a thousand rubles?! Is this really good management? Of course not. Industrial farm operations which still lack a solid feed base and are sometimes short of workers is another kind of situation which simply cannot be allow to continue. Dairy complexes in Saratov, Orenburg and Amur oblasts are among the most poorly supplied with feed. Most farms are not attaching enough importance to pasture grazing and the development of arable meadows and pastures.

All these are serious shortcomings and mistakes. No objective circumstances can justify them. The experience with most of our large complexes, and not, by any means, of the best ones alone, has already shown that they can, and must, recoup the money invested in them and with a profit to boot. In the final analysis, everything is going to depend on the quality of the management, that is, on the competence, skills and energy of those responsible for running these large livestock collectives. We can see the truth of this in some bitter but instructive experiences in Ivanovo Oblast. There are two large hog-raising combines here. One of them, on Borovoye Sovkhoz, was turned over with most of the work still to be completed and no residential housing whatsoever, while the other, on Borozhino Sovkhoz, the housing was turned over for occupation almost simultaneously with the production facilities. But what do we see here now? Both collectives are performing poorly-here and there complete disorganization, gross departures from recommended procedures and a large number of young pigs not even surviving. Why? Because for neither one of these sovkhozes were oblast authorities able to pick good managers right from the very beginning. Since the beginning of the five-year-plan period, Borovoye Sovkhoz has had two managers and has just named a third.

This problem, of course, does not come down to the large livestock complexes alone. We should not forget that as far as social production is concerned, we will find them prodominate in poultry production alone, while they provide only some 6 per cent of our milk and beef and 36 per cent of our pork. This share of production will undoubtedly grow, but the small and medium-size farms will continue to play a major role in our livestock production operations. And it is

entirely probable that the need for them will never disappear completely. Not only because they enable us to continue our exploitation of small-scale, purely local feed resources and the more remote pastures and meadows. And not simply because by helping us save our small villages they are helping to solve some of our important social problems.

Pig farms which are feeding somewhere between one and three thousand animals will not all that infrequently achieve high levels of labor productivity such as we see on the well-known large hog-raising combines. Look, for example, at Lenin Kolkhoz in Dubenskiy Rayon in the Mordovian ASSR; Seyatel' Kolkhoz, Morgayshskiy Rayon, Chuvash ASSR; Bol'shevik Kolkhoz, Pogarskiy Rayon, Bryansk Oblast and Shilovskiy and Zavyalovskiy sovkhozes in Novosibirsk Oblast. It is not just when it comes to hog raising, but in other operations as well we can say that the size of a farm or livestock-raising facility is by no means always going to bear any direct relationship to the degree of intensification or the level of industrial-ization of production. Our small farms, too, must be aggressive in their introduction of industrial technologies.

Unfortunately, however, local farm officials are by no means all looking at the problem of how to make the most efficient use of small livestock facilities from the proper point of view. You will hear people here say, for example, that these places are old and obsolete and so you're just not going to be able to get very much out of them. So many hog farms expect to see an average daily weight gain of 180-250 grams instead of 500. In addition to the high feed and manpower costs we will find sharply increasing overhead as well. The conclusion to be drawn here, of course, is that planners need to take fuller and more accurate account of the livestock facilities available to a farm and prepare plans that provide for the most efficient utilization of these facilities.

Failure to give proper attention to our small farms is, among other things, a sign of a parochialism in outlook. These farms operate on a system whereby they supply their own feed, and this requires an enormous amount of effort. It would be simpler, people will say, to have a complex, a combine or a factory of some kind where you could get your concentrates from government stores. After making its own study of the problem, the USSR ministry of agriculture criticized this kind of dependency and, quite justifiably, called for steps to be taken to improve the health of small hog farms and for everything possible to be done to expand pork production on the basis of local feed supplies. But even after all this, the number of these farms continues to drop in Kaluga, Ryazan and Orenburg oblasts.

It remains now to say something about the difficulties involved in trying to bring planned capacities into operation. Hog farmers are still awaiting more help from the veterinary scientists at VASKhNIL [V. I. Lenin All-Union Academy of Agricultural Sciences]: serious difficulties have arisen in the operation of these large combines. Livestock farmers have no small number of bones to pick with the people who build their machinery as well. The feed-distributing transport vehicles supplied by Minzhivmash [ministry of machine building for animal husbandry and fodder production] have proven to be unreliable and of extremely poor design. The ministry has also been slow to get a great many items of machinery and equipment into production which the livestock farmers have a sharply increasing need for the faster their labor is mechanized.

Livestock production facilities are a national asset. We need to get the maximum return from each and every one of them. We need, among other things, to do everything possible to insure that large complexes reach their planned production capacities in the shortest periods of time possible. When we leave them underutilized, producing at less than planned capacity, we are inflicting direct losses on ourselves, and to this kind of waste and mismanagement it is time to put an end. Otherwise, as was underlined at the April plenum of the CPSU Central Committee, we will not be able even to discuss the possibility of what can be achieved by efficient management.

8963

CSO: 1824/407

### REGIONAL DEVELOPMENT

UDC 631.16:658.155

### RSFSR AGRICULTURE MINISTER SURVEYS SITUATION

Moscow EKONOMIKA SEL'SKOGO KHOZYAYSTVA in Russian No 4, Apr 85 pp 22-30

[Article by V. Nikonov, RSFSR Minister of Agriculture: "Increase the Intensiveness of Agriculture"; For Nikonov's lead article in SEL'SKOYE KHOZYAYSTV ROSSII, No 3, Mar 85, see UAG 85.016, 2 Jul 35, p 39.]

[Text] Great changes have taken place in agriculture in the Russian Federation since the March (1965) CPSU Central Committee Plenum. Between 1966 and 1984 more than 258 billion rubles have been allocated to it. As a result the fixed capital for agricultural production has increased 4.3 fold.

Especially much has been done during these years to strengthen the sector's material-technical base. Animal raising facilities for almost 125 million head of livestock, including 46 million cattle, have been introduced. Specialized animal raising complexes and large poultry factories, repair shops, garages, storage facilities for agricultural products and fertilizers and other projects have been built.

There have been marked increases in the amount of equipment available to agriculture. Compared to the 8th Five-Year Plan , the delivery of tractors, including their expected delivery during 1985, has increased 35 percent, that of trucks -- 2.2 fold, of grain combines -- 1.2 fold. There have also been substantial increases in the delivery of other agricultural equipment and improvements in its quality.

At the beginning of 1984 kolkhozes and sovkhozes had more than 9 tractors (in echelon counting) and more than 5 trucks per 100 hectares of arable land. This was 2.2 and 1.6 fold higher than the respective levels in 1966. The availability of grain combines increased 1.7 fold and was almost 7 combines per 1,000 hectares of grain crops plantings.

The increased deliveries of agricultural equipment and improvements in electricity supplies permitted a 2.8 fold increase in the energy supply to kolkhozes and sovkhozes and a 3.7 fold increase in the energy available. It also made possible the comprehensive or partial mechanization of many production processes in agriculture, animal raising and feed production.

There have been considerable increases in mechanization in the republic and work on improving soil fertility has become more focused. Between 1965 and

1984 fertilizer deliveries to kolkhozes and sovkhozes (calculated in terms of 100 percent nutrient content) increased by almost 9 million tons, there was a 2.6 fold increase in the use of organic fertilizers, a 2.4 fold increase in lime application and a 2.6 fold increase in gypsum applications to alkaline soils. All this was helped to a considerable extent by the creation, in 1979, of a specialized agrochemical service and the development and strengthening of its material-technical base.

There has been widespread development of land reclamation, the greatest amounts of which are due to the the decisions of the May (1966) CPSU Central Committee Plenum. Now about 70 percent of the produce, 25 percent of the coarse and succulent feeds more than 20 percent of the gross harvest of grain and many other crops are grown on improved land.

The development of agriculture and the APK sectors linked to it has reached a new stage with the implementation of the decisions made by the May (1982) CPSU Central Committee Plenum, which approved the USSR Food Program and took sweeping measures for its implementation. As is shown by the successes of the past two years attained by kolkhozes and sovkhozes in the Russian Federation, the realization of these measures has had notable positive results.

Collective contracting in the countryside is having an ever more noticeable influence upon the production and economic indicators of kolkhoz and sovkhoz work. There is more active and purposeful work by farms and local agricultural organs to develop scientifically based systems of agriculture, to improve crop seed raising, especially feed crops, to upgrade crop area structure, to introduce progressive technology in agriculture and animal raising and in a number of other directions.

In recent years definite work has been done in the republic to improve zonal specialization and increase the concentration of animal and plant sectors, to improve the supply of food products to the public and to increase the level of self sufficiency, especially in meat and meat products.

Taken together, all these measures have helped considerably increase meat resources and meat production per capita (in slaughter weight) to 59 kg by 1984, 24 percent over 1970. In the Central Economic Region this indicator has grown 1.2 fold, in the Volga-Vyatka and Far Eastern Economic regions the growth is 1.4 fold. Now more than 80 kg of meat per capita is produced in Ryazan, Orel, Voronezh, Kursk, Lipetsk, Tambov, Penza, Rostov and Orenburg oblasts, and more than 100 kg per capita in Belgorod, Kurgan, and Omsk oblasts, Krasnodar and Stavropol Krays and the Kalmyk ASSR.

Positive advances have been noted in the production of plant products, especially potatoes. Their average annual production on kolkhozes and sovkhozes and other state farms increased by 4 percent or by 626,000 tons compared to the 10th Five-Year Plan. This was attained mainly through increases in yields and improvements in specialization and the location of this crop. More than 50 oblasts, krays and ASSRs are now completely self sufficient in this crop. The task in the immediate years ahead is to attain self sufficiency in this crop in Saratov, Volgograd, Rostov, Kurgan and Ulyanov oblasts.

All these are, without a doubt, excellent advances, pointing to definitely positive tendencies in the intensification of agricultural production which now must be strengthened and universally expanded.

This requires persistent, daily and intense work to increase the return from the potentials created in the countryside which, as progressive farms' experience shows, will now make it possible to work effectively and attain quite high production indicators. Such work must be done in a whole series of directions, above all, those which are decisive in solving tasks in the Food Program's implementation.

Success in solving this very important problem is to a great extent determined by the grain situation in the Russian Federation, which now accounts for more than one-half of national grain production and sales to the state.

A characteristic feature in the development of grain growing over the three preceding five-year plans has been the quite stable increase in grain yields and gross harvests. Compared to the 7th Five-Year Plan, during the 10th Five-Year Plan average annual grain production increased by 37.3 million tons, or 49 percent. Compared to that same period there has also been somewhat of an increase in the 4 years of the current five-year plan, 3 of which had very unfavorable weather conditions. However, it was just such conditions, having a marked effect upon results, that revealed shortcomings and oversights in grain growing.

On a number of kolkhozes and sovkhozes in the republic the yields and gross harvests of grain crops have suffered sizable changes depending upon weather conditions. This is mainly a consequence of insufficiently high agricultural standards, and, in a number of cases, agronomic measures which are not appropriate to the specific features of the farm, region or zone as a whole.

Increases in grain production are, to a known degree, delayed by shortages of mineral fertilizers, in spite of the fact that the size of their applications to grain crops have increased and in 1983 reached 3.9 million tons (in terms of 100 percent nutrient content), or 56 kg per hectare of crop, compared to 24 during the 7th Five-Year Plan. However, even with this, during the current five-year plan 26 - 30 million hectares annually do not receive any fertilizer at all, while extensive areas do not receive more than 15 kg/ha. This is below the norm. There are often cases where fertilizers are improperly applied. Because of this yields do not increase and grain quality is reduced.

The reductions in the plantings of pulse crops and spring wheat which have been allowed on many farms in previous years should be considered a serious shortcoming in grain growing. As a consequence there were considerable shortages of plant protain. There are still grain losses due to the stretching out of harvest time, mainly because of organizational reasons and frequently because of heavy work loads on harvest equipment. This has an especially negative effect upon regions with unstable weather conditions.

Questions on increasing grain production in the country were examined at CPSU Politburo meetings twice in 1984. The degrees passed concerning these questions made provisions for a broad complex of measures to introduce progressive technology for growing winter and spring crops in order to increase the stability of grain growing and to assure guaranteed increases in gross harvests of high quality grain. Guided by these decrees, the republic has developed and is implementing a complex of measures to further intensify and increase the stability of grain production, and eliminate the shortcomings here. The basis of these measures is the complete mastery of scientifically based systems of agriculture, the production introduction of intensive techniques for growing winter and spring crops and the skillful use of fertilizer and means of plant protection.

Structural improvements are being made in the area planted to grain. The basic direction is an expansion of the area planted to the most valuable and high yielding crops. This is giving positive results. Compared to the 10th Five-Year Plan, the area planted to grain corn increased more than 300,000 hectares, making it possible to increase the gross harvest of grain corn by 900,000 tons. In 1985 the area devoted to this crop increased another 160,000 hectares. There are also expansions in the area devoted to pulse crops, the magnitude of which increased by almost 1.1 million hectares in 1985 compared to 1976-1980. Practical possibilities for increasing the production of groats, first of all millet and buckwheat, are being sought for and implemented.

The work of kolkhozes and sovkhozes and agricultural organs to improve the growing of seeds for grain and other crops is becoming better planned. Everywhere specialized seed growing farms are being organized to provide primary seeds to all other enterprises. In addition, it is intended to specialize entire rayons with favorable weather, natural, soil and other conditions in the growing of seeds for some crops. There is an increasing volume of preplanting processing of seed using film forming substances.

Heightened activity in the comprehensive agrochemical cultivation of fallow fields, the best predecessors for grain, is a major condition for increasing grain production. In 1985 this work, providing for at least 5-6 quintals of the increase in grain, yield per cultivated hectare, will be done on 4.3 million hectares, or 876,000 hectares more than in 1984. Comprehensive measures for protecting the soil from wind and water erosion will receive further development.

In 1984 revealing results were obtained by the production testing of intensive technology for growing winter wheat. For example, at the Kolkhoz imeni Gorkiy in Tbilisi Rayon, Krasnodar Kray, winter wheat yields exceeded 66 quintals per hectare, at the Rossiay Kolkhoz in Novoaleksandrovskiy Rayon, Stavropol Kray they were 55 quintals per hectare, almost 20 quintals per hectare more than using traditional agronomic techniques

In order to further disseminate this experiment in the planting of winter crops, this type of technology is being used to grow grain on 1.8 million hectares. In addition 3.2 million hectares are following well fertilized clean fallow. It is essential to note that the most kolkhozes and sovkhozes have

successfully prepared the fields, applied fertilizers and planted, i.e. they have completed the first stage of work.

In 1985 it is intended to use intensive technology to raise spring wheat on one out of three acres devoted to this crop. It is also planned to locate one-half of the plantings on fertilized clean fallow, and the remaining on tilled fallow. This will be the technology used to raise spring wheat on farms in Kurgan, Orenburg, Chelyabinsk, Kemerovo, Novosibirsk and a number of other oblasts, Altay and Krasnoyarsk krays and the Bashkir and Tatar autonomous republic.

The improvement of grain quality is one of the most important tasks in the intensification of grain growing. In 1984 extensive work was done to increase the production and purchase of grain with good processing properties. Hard and durum wheats were planted after the better predecessors. Especially good care was given to winter wheat: additional amounts of nitrogen and phosphate fertilizers were applied, plants were protected from weeds, diseases and predators, especially from chinch bugs [klop-cherepaskhi]. Tissue and leaf diagnosis was conducted on practically the entire area devoted to the commercial production of hard and durum wheats. Its results were used for the spray application of nitrogen fertilizer. There were also moral and material incentive measures for workers to deliver high quality wheat.

As a result of these measures, in 1984 the republic's farms sold the state considerably more hard wheat than in 1983. Especially distinguished were farms in Stavropol and Altay krays, Omsk, Rostov, Kuybyshev and certain other oblasts. In 1985 work on increasing the production of high quality grain will continue,

In connection with the introduction of scientifically based cropping systems at kolkhozes and sovkhozes, in many regions it has become very necessary to replace the traditional plow tillage methods with more effective progressive methods, naturally, taking soil-climactic conditions into consideration. Surface and minimum tillage methods are becoming ever more widespread. Practical experience has shown that these methods have proven themselves well in the preparation of land for planting winter crops, especially in regions where there are acute shortages of moisture during these periods.

Experiments conducted over many years at NIISKh [Scientific Research Institute for Agriculture] for the Central Regions of the Nonchernozem Zone show that if an RVK-3.6 is used instead of a plow to prepare land for planting winter wheat following vetch-oat fallow, wheat yields are 45-50 quintals per hectare and costs for soil preparation are reduced by 4.4 rubles per hectare. The use of a BDT-7 instead of a plow to surface till leached chernozem previously planted with peas and a vetch-oat mixture increased winter wheat yields by 5.9-3 quintals per hectare and costs were reduced from 8.47 to 4.78 rubles per hectare.

In view of this many farms have started to successfully use equipment such as the BDT-7, KPSh-5, KPSh-9, AKP-2.5, RVK-3.6 and others instead of plows. In 1985 more than 12 percent of all area devoted to winter crops was tilled by such equipment. In Penza Oblast the share of such plantings reached 68 percent, in Voronezh - 52, in Belgorod - 47 and in Tambov Oblast - 30 percent.

Increases in the delivery of the herbicide 2,4D to kolkhozes and sovkhozes will be of considerable help in avoiding the use of mechanical methods in the struggle against weeds in clean fallow. Practice shows that costs for the application of this herbicide are paid off in the very first year.

In addition to increases in grain production, there is much to do in the animal raising sector, where there have definitely been positive advances in recent years. Thus, compared to the average annual level in the 10th Five-Year Plan, in 4 years of the current Five-Year Plan all categories of farms have increased the production of the main types of animal products. This includes a 6 percent increase in meat and a 16 percent increase in egg production. There have also been improvements in work indicators for herd reproduction. In 1984, as in 1983, the republic successfully completed the plan for the sales of animal products to the state. This undoubtedly indicates that the sector has begun to work better and more productively. However, this is still not enough. Reaching the goals set by the Food Program requires further development in animal raising, above all increases in its intensiveness.

One of the main conditions necessary for increasing the intensiveness of animal raising is the reliable and complete supply of high quality feeds. Much has been done in the republic in this regard. In the past 4 years of the 11th five-year plan alone, more than 3.2 billion rubles have been allocated to the sector's material-technical base. During this period storage facilities put into operation at farms have reached the following totals: for silage-haylage -- 50 million tons, for hay -- 2.5 million tons, for feed roots -- 1.2 million tons, these figures are 39, 78 and 56 percent of the present total.

There have been structural improvements in the areas devoted to feed crops and increases in the share of intensive type crops. As a result, during 1981-1984 the average annual production of coarse and succulent feeds increased 13 percent compared to the 10th Five-Year Plan and productivity per hectare of feed crops increased by 290 feed units.

However, the development level reached by feed production is insufficient to completely meet the feed requirements of public and private animal raising. In order to meet them, the average yield from land occupied by feed crops will have to reach at least 5,000-6,000 feed units on non-irrigated land and 10,000-15,000 feed units on irrigated land. It is also essential to increase the productivity of natural forage land, and solve problems in supplying animals with feed protein.

The more extensive introduction of progressive technology for feed production is becoming an important factor for intensifying feed production and converting it to an industrial basis. For example, the use of progressive technology for raising corn and its early planting with water repellent seeds now makes it possible to steadily obtain high yields of green chop with ears

in the milky-waxy stage in many regions in the republic with climactic conditions had previously not been thought suitable for this purpose.

There is much to do to reduce feed losses and improve its quality through the introduction of progressive technology for its preparation: hay baling, drying by active ventilation, feed ensiling using chemical preservatives and the preparation of mixed silage.

Considerable efforts are needed to supply animals with feed protein. The present shortages of digestible protein and essential amino acids available to animals reduce their productivity and increase feed consumption per unit of output.

Studies show that just supplying animals with the amounts of digestible protein and amino acids called for by veterinary norms would make possible a 20-22 percent increase in animal product output in the RSFSR and would significantly improve the sector's economic indicators. It is intended to solve this problem through expanding the planting and increasing the yield of peas, alfalfa, vetch, clover, rape and other high protein crops. In order to more intensively use arable land and to increase feed production there are also provisions to expand the area devoted to repeated plantings of feed crops, especially on irrigated lands, increasing it to 3 million hectares.

Many farms' experience shows that one of the largest reserves for creating a solid feed base is the intensive use of natural forage lands. They now total 83.5 million hectares, of which 0.7 million hectares are irrigated and 2.3 million hectares drained. However, the productivity of this land, including reclaimed land, remains low, mainly due to its unsatisfactory condition. At present brush and small trees have grown up on almost 12 million hectares of hay fields and pastures, about 6 million hectares are swampy, 7 million hectares are are stony and almost as many have become saline.

One-third of all hay and pasture land in the republic is unsuitable for machine harvesting. In a number of oblasts in the Central, Northwest, Central Chernozem and Far Eastern regions up to 70-80 percent of such land is in this condition.

In recent years a certain amount of work has been done to put hay fields and pastures in order. Radical and surface improvements have been made on 33 million hectares and amelioration work has been done on 7.6 million hectares not requiring drainage.

In the republic there are examples of a successful, creative approach by local agricultural organs and kolkhozes and sovkhozes to the improvement of agricultural land and in bring new areas into agricultural use. The work of farms in Ivanovo Oblast in improving natural forage lands is proof of this. Subsurface and swamp tillers are widely used for these purposes here. The PMK [Mobile mechanized column] of Glavnechernozemvodstroy [Main Administration for Water Resources Construction in the Nonchernozem Region], the farms themselves and Sel'khozkhimiya are engaged in this work. In 1983, 10,500 hectares were improved in the oblast, this is 1.5 fold more than for the entire 10th Five-Year Plan. In 1984 work was done on 23,000 hectares. The returns from this are

high. Even during the dry conditions last year, at the Rastilkovskiy Sovkhoz hay yields from each of the 530 improved hectares of meadow land were 43 quintals per hectare, while previously the farm had not even obtained 10 quintals per hectare. The Mugreyevskiy Sovkhoz harvests 40 quintals of first class hay per hectare.

The October (1984) CPSU Central Committee Plenum delineated the development of feed production as one of the main directions in the use of reclaimed land. Today in the republic feed crops occupy over 2.8 million hectares, or 64 percent of irrigated land. Also, there are about 700,000 hectares of irrigated hay fields and pasture. In recent times the productivity of feed crops has increased somewhat and during 1981-1984 averaged 3,200 feed units per hectare, or 500 more than during the 10th five-year plan.

Also deserving of attention is the organization of feed production on irrigated lands of kolkhozes and sovkhozes in Stavropol Kray, where during the 4 years of the 11th Five-Year Plan each irrigated hectare averaged more than 6,000 feed units. Here they raise 2-3 feed crops a year, making it possible to increase the productivity of each such hectare to more than 10,000 feed units. For this experience to become the property of other oblasts, krays and autonomous republics it will require the use of huge reserves and the creation of a reliable basis for the intensive development of animal raising.

In addition to increases in feed production it is also very important to improve feed structure and to rationally use feed resources, especially grain. Sizable amounts of concentrated feeds are now used annually to meet the needs of animal raising. Many farms have been able to find ways to replace them, using low concentrated types of feeding and rationally utilizing bulky feeds. Year after year there are increases in the preparation of mixed silage, which can successfully replace up to 15-20 percent of the concentrated feeds in rations. In the past 4 years alone, its preparation has increased from 2.5 to 6.7 million tons, or 2.7 fold. In the RSFSR in 1984, 3.6 tons of full valued feed were prepared for each sow. In Voronezh Oblast, for example, the introduction of such silage into pig rations reduced the consumption of concentrated feeds per pig from 5.4 quintals in the 10th Five-Year Plan to 4.9 at present.

In view of the high efficiency of using mixed silage for feeding livestock and poultry, one can confidently state that further increases in its preparation will help reduce the share of grain feeds [zernofurazh] in total feed consumption.

There are considerable increases in the area planted to corn raised using grain growing equipment and techniques. In our republic we have gained experience in the harvest, storage and use of corn ears in the milky-waxy stage of ripeness. The corn is chopped and stored in trenches. This technique has passed production testing at farms in Rostov and Belgorod oblasts and Krasnodar Kray. In the immediate future it will be used in the majority of rayons in the Russian Federation.

The creation of a stable feed base is a necessary, but not the only condition essential for increasing the intensiveness of the animal raising sector. This, as a rule, requires the simultaneous solution of a complex of tasks. The development of dairy animal operations in Leningrad Oblast is sufficiently convincing evidence of this.

Compared to the 9th Five-Year Plan, during the 10th Five-Year Plan and the first 4 years of the current plan, average annual milk production in this oblast increased by 24 percent, and milk sales to the state increased by 43 percent. During 1981-1984 milk production was 3,259 kg per cow and 1,072 quintals per 100 hectares of agricultural land. It is important to note that the entire increment in output was obtained through increased labor productivity. In the current five year plan it has increased 53.1 percent over the average annual level in the 9th Five-Year Plan and 16.2 percent over that level in the 10th Five-Year Plan.

Starting in 1971, there were in operation in the oblast 1 scientific-production association, 23 rayon and 2 inter-rayon production associations, which were made up of precisely defined farms specializing in milk production, the raising of young cattle and in cattle feeding.

The sector is being converted to an industrial basis in a planned manner and on an extensive scale. During the 10th and 17th Five-Year Plans 46 animal raising complexes, including 44 for milk production, were introduced in the oblast, 110 animal farms [fermy] have been reconstructed and modernized and have received progressive technology for keeping livestock. Many farms have been consolidated. While in 1975 the average farm had 295 cows, in 1984 it has 1.5 fold more. During this same period, annual milk production per farm [khozyaystvo] increased by more than 30 percent and exceeded 6,000 tons.

Technological specialization has become widespread. At farms and complexes we have organized calving areas with veterinary dispensaries for calves, dry cow and milk production units. Milking herds are provided with first heifers raised at specialized farms and which have undergone mandatory testing at control and selection yards. In order to supply animal farms with replacement animals, 23 specialized farms [khozyaystvo] have been established. They annually raise and sell sovkhozes more than one-half of all heifers used to reproduce the dairy herd. At the beginning of 1984 technological specialization was introduced on 180 animal farms, which accounted for 60 percent of the entire cow herd at sovkhozes in the oblast.

Much has been done to comprehensively mechanize dairy cattle raising. Milking and manure removal are completely mechanized, feed distribution is 86 percent mechanized. In 1984 the general level of comprehensive mechanization was 85 percent.

The organization and payment of labor is steadily improving. There is a thorough division of labor at the 238 animal farms and complexes where almost 70 percent of the total herd is concentrated. Specialized links have been organized for this purpose. This alone has increased the work load per worker at such animal farms by an average of 34 percent. In order to improve working conditions of animal workers at 70 percent of the animal farms and complexes a

two shift work day and a two cycle arrangement have been introduced and collective contracts are being introduced.

Selection-breeding work is being done in a purposeful manner, on the basis of a long term plan. It has resulted in considerable improvements in the pedigree and class makeup of cattle, increased the percentage of cows having 5 to 7 calvings and provided for the greatest milk productivity. Great attention is given to the formation of optimal herd structure. Artificial insemination, which now covers at least 98 percent of the entire breeding herd, has become the main method for reproduction and improvements in qualitative composition. Milk productivity from 5,600 to 6,600 kg per cow is evidence that the herd's genetic potentials are quite high. Interbreed crossing of cattle will assist in further improving productive qualities. Fairly good indicators have also been attained for herd reproduction: each 100 cows at sovkhozes give birth to 88-91 calves, this is 8-11 more than the republic average.

Large scale measures have been implemented in feed production, which has sectorial characteristics. This has made it possible to increase feed output by 13.2 percent over the past 4 years and increase feed availability for the 1984-1985 wintering to 2,170 feed units per standard head of livestock, and at farms with productivity per cow exceeding 5,000 kg, to 4,500-5,000 and more feed units.

Questions in the training and retraining of animal raiser cadre have a prominent place in the complex of measures to development dairy animal raising and to increase its intensiveness. Seven rural professional-technical schools are in operation, training animal raising cadre. About 500 milking machine operators and service equipment operators from animal farms annually improve their skills. The mentor/apprentice system [nastavnichestvo] has received widespread development.

Special attention is given to the social development of the countryside. In the past 9 years alone about 2.5 million square meters of housing area have been introduced, this is about 25-27 apartments per sovkhoz. Kindergartens have been built for 16,200 children and schools for 22,700 pupils. There have been sizable expansions in the network of enterprises and institutions for medical, trade and communal services. More than 780 km of intrafarm hard surface roads have been built. All this has helped retain key personnel at sovkhozes and other agricultural enterprises and has become the basis for measures to further develop agricultural production.

This detailed description of experiences in Leningrad Oblast was not accidental. The measures to increase the intensiveness of dairy animal operations, which were implemented here, are not the only ones possible. Each kray, oblast and autonomous republic, to say nothing of individual farm, has its own specific features. Naturally, they must not be ignored. However, in all cases, the main thing is a comprehensive approach to solving these problems. Its present lack at a number of kolkhozes and sovkhozes in the republic is the main limiting factor in the development of this and other animal raising sectors.

Experience shows that together with the above measures, success in improving the efficiency of dairy operations depends greatly upon the proper selection of production technology. In recent years two technologies have been determined to most completely meet the main demand -- that of increasing labor productivity for intensive operations. They are: the stall system of keeping cattle, milking them in milk blocks; and the loose housing-box method.

The effectiveness of this technology is shown by work results at the Krasniy Luch Sovkhoz and the Pamyat' Il'icha Kolkhoz in Shchelkovskiy Rayon, Moscow Oblast, which, in addition to completely supplying animals with feeds, have also solved technological and organizational problems. At the Pamyat' Il'icha Kolkhoz they have introduced the stall method, milking cows at a milking block (equipped with a Tandem milker with manipulators for automatically turning of the milking machine), a flowline-shop system for production organization and two shift work. The load per milker has been increased up to 100 cows. The productivity of the milking herd was maintained at a high level in 1984 and the average exceeded 4,500 kg per cow. According to preliminary data, labor outlays per 1 quintal of milk were 3.5 person hours, or more than 2 fold less than the average for kolkhozes and sovkhozes in the republic and 3 fold less than at farms where this technology has not been introduced.

At the Krasnyy Luch Sovkhoz, which uses the loose housing-box system, milking animals with a UDA-16 Yelochka, in 1984 milk production per cow exceeded 5,300 kg and labor outlays per quintal were 1.4 person hours.

Every year high labor productivity from the introduction of such technology is achieved by the following farms: the Kolkhoz-Breeding Farm imeni Lenin, Novomoskovskiy Rayon, Tula Oblast; the Bolshevik Kolkhoz, Ordynskiy Rayon, Novosibirsk Oblast; the Vorsino Sovkhoz, Kaluga Oblast and many others.

There are still many tasks to solve in order to increase beef production. The only correct path here is the organization of intensive raising and feeding of young cattle and the development of meat cattle raising as a specialized sector.

In the RSFSR more than 2,000 specialized beef production farms are working under conditions of intrasectoral and intrafarm specialization and there are 166 large complexes with a total of 1.3 million head of cattle.

In recent years there has been a marked improvement in the weight condition of livestock delivered. In 1983 the average weight for 3.5 million young animals was 418 kg and 44 percent of the animals weighed 350 and more kilograms. In 1984 more than one-half of the cattle delivered to meat combines were in a high state of nourishment.

Work experience at many farms is convincing evidence of the efficiency of raising and feeding livestock to a weights of 450 and more kg, which the animals reach at 16-18 months of age. Studies show that the extensive raising of animals to a 400 kg live weight takes about 4,000 feed units per head. If the food value and balance of the ration is improved, this weight can be attained in 18 months and feed consumption reduced to 3,000 feed units. If the

intensive raising and feeding of cattle at an early age is organized, the same weight can be attained at 15 months and feed consumption reduced to 2,400 feed units. It turns out that progressive technology makes it possible to save enough feed to raise an additional 560 head of cattle for each 1,000 head raised.

Thus, after three years of operations at the complex of the Novo-Rayevskiy Sovkhoz in the Bashkir ASSR, it took 400 days to increase the weight of male calves from 53 to 467 kg. The average daily weight gain per animal was 1 kg. It took 500 feed units and 3.5 person hours to attain each quintal of weight gain. Labor productivity at the complex was more than 12 fold higher than the republic average, while feed consumption was 3.5 fold lower and production costs one-forth lower.

Efficiency improvements in pig raising require quite a bit of effort. The measures taken in this direction during the current Five-Year Plan will make it possible to increase pig production by 13 percent compared to the average annual level during the 10th Five-Year Plan, to increase the pig herd by 9 percent and the piglet birthrate by 12 percent.

There are considerable reserves for increasing production intensiveness through the reconstruction and modernization of pig farms at kolkhozes and sovkhozes producing pigs using their own feed supplies. The mastery of industrial technology based on the flowline system for pig production will sharply improve results in herd reproduction and animal feeding. The Kolkhoz imeni Frunze in Belgorod Oblast is a good example of high efficiency from resources spent on the reconstruction of a pig farm.

The mechanization of labor intensive processes in feed and water supply, waste removal and maintaining the necessary parameters for the microclimate in the piglet unit has made it possible for one operator to take care of 1,000 young animals and obtain a 450 gram average daily live weight gain. As a result of reconstruction and, upon this basis, the introduction of more efficient technology, the capacity of the sow house was increased to 1,150 head, a 64 percent rise, and facilities for raising young animals were enlarged to house 2,000 head, that is, almost doubled. In 1984 instead of 12,000, 40,000 piglets were raised in the 4 reconstructed buildings. The gross live weight gain at the Chayka reproduction farm grew by 600 tons. The economic effect from the reconstruction of 5 sow houses exceeded 1 million rubles.

There are several such examples in the republic. All of them are evidence of the great, but still insufficiently used reserves for increasing production volume and for improving its economic indicators. Animal complexes' work results for 1983 speak vividly of this. As is known, they were quite favorable. Nevertheless, at almost 1 out of 2 dairy complexes productivity per cow does not exceed 2,500 kg, and at one out of 5 it is 2,000 and less. The amplitude of productivity fluctuation is quite high -- from less than 2,000 to more than 6,000 kg per cow annually.

In this same year 49 out of 167 beef production complexes in the republic obtained an average annual cattle live weight gains of 500 grams and less. However, there are also different results. At 39 complexes this indicator exceeded 800 grams and at 6 it was more than 1000 g. This shows that in spite of complete supplies of feed from state resources, some complexes still have low production indicators. Such negative phenomena were also noted in the work of pig raising complexes. At 26 of them, the average daily weight gain of animals being raised and fed was less than 200 g.

Improvements in the operation of animal complexes are one of the many reserves for increasing the returns from the production potential created in the countryside.

Understandably, the problems touched upon here do not completely encompass the large circle of tasks facing the sector. However, it is they which are now the key and definitive ones in intensifying agricultural production in the republic and in successfully completing the Food Program.

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CSO: 1824/397

RSFSR OFFICIAL DISCUSSES DEVELOPMENT, PROSPECTS OF REPUBLIC APK

Moscow EKONOMIKA SEL'SKOGO KHOZYAYSTVA in Russian No 4, Apr 85 pp 11-21

[Article by L. Yermin, first deputy chairman, RSFSR Council of Ministers; chairman, RSFSR Council of Ministers Presidium Commission on APK Problems: "The Agro-industrial Complex of Russia: Its Condition and Development Prospects"]

[Text] Workers in the Russian Federation's agro-industrial complex are making a noticeable contribution to fulfilling the country's Food Plan. In 1983-1984 the republic's gross agricultural output increased by 12 billion rubles compared to the preceding 2 years of the current five-year plan. This was attained mainly through increases in animal products. During these years there were also substantial increases in the procurement of potatoes, produce, sugar beets and flax fiber. The 1983-1984 plans for the sales of meat, milk, eggs and wool to the state were fulfilled. Compared to the previous year, in 1984 there were above plan purchases of 242,000 tons of livestock and poultry, 640,000 tons of milk and 833 million eggs. This had a positive effect upon the work of the processing industry's sectors, above all, food, dairy and meat.

The economic results of agricultural enterprise activities have started changing for the better and there are improvements in the level of total profitability for kolkhozes and sovkhozes production. In 1983 all farms in Leningrad, Lipetsk, Vladimir and Tula oblasts and the Mari ASSR finished the year with a profits. The number of farms operating at a loss declined somewhat in other oblasts, krays and autonomous republics.

There has been a marked acceleration in the rate of social transformation. Since the beginning of the current five-year plan a total of 45 million square meters of housing has been introduced in the countryside, 14 million more than during four years of the 10th Five-Year Plan. An average of eight apartments per farm is being introduced and the levels of rural services and facilities are increasing. Ever greater numbers of schools, preschool institutions, health and cultural facilities are being built in rural areas and personal services are improving. Year after year there are increases in the real incomes of kolkhoz farmers and sovkhoz workers, and their trade services are improving.

In the RSFSR, just as in other regions of the country, the long awaited process of reducing the outflow of the rural population to the city has begun. Over the past 3 years the number of people leaving the countryside has declined by 24 percent for the republic as a whole, while in the Nonchernozem Zone it has dropped 30 percent. The birthrate for rural families has increased, although there are still quite acute demographic problems in a number of regions in the republic.

Among the positive advances is that in recent years there have been increases the number of cattle, pigs, sheep and poultry and in production at private subsidiary plots. This is a substantial supplement to public agriculture.

In spite of the positive advances, the republic's agricultural situation still remains difficult in a number of important areas. The production of many types of the sector's products still lags behind the population's growing demands and the Food Program's targets. This obligates us to even more persistently increase the efficiency of kolkhozes and sovkhozes and all sectors in the APK and to further increase the growth rates in the production of grain, feed, meat, milk and other agricultural products.

The party has made increases in grain production and further accelerated development of animal raising the key and urgent tasks at this stage. It is essential to attain growth rates in the gross harvest of grain so as to meet all the country's demand in the immediate years ahead. The RSFSR has a very significant role in solving this most important task. This year grain production should increase 19 percent compared to the 10th Five-Year Flan's average annual indicators for the same crop area. This is mainly due to sizable increases in grain crop yields.

In animal raising it is essential to consolidate and expand upon the positive results obtained in recent years through improvements in breeding stock, strengthening of the feed base, improvements in its quality and preparation for feeding in order to assure a considerable growth in livestock productivity with the same size herd.

The only correct path for solving these key tasks is the thorough intensification of agricultural production and through switching it onto industrial rails. It was noted at the March (1985) CPSU Central Committee Plenum that: "We need to achieve a decisive turnaround in switching out national economy to the rails of intensive development. We should and must rapidly attain the very forefront of science and technology and bring the productivity of social labor up to the highest world levels."

The RSFSR agro-industrial complex was formed as a very complicated system, including various sectors of the national economy. It has about 30 percent of the republic's fixed productive capital. It produces a considerable share of the aggregate social product and national income. At present it contains 79 oblast, kray and republic (ASSR) agro-industrial associations, including 8 in autonomous oblasts and okrugs. There are 1,715 rayon agro-industrial associations (RAPO), which include more than 48,000 enterprises and organizations and 24,400 kolkhozes and sovkhozes. The RAPO include about 3,300

industrial enterprises for processing agricultural products, more than 10,000 organizations servicing agriculture, rayon associations such as Goskomselkhoztekhnika, Selkhozkhimiya [Agricultural chemical], Selenergo [Agricultural energy] and organizations operating reclamation systems, veterinary and other institutions. More than 9,000 construction and other organizations are operating at kolkhozes, sovkhozes, enterprises and organizations in RAPO.

The successful attainment of Food Program targets depends to a great extent upon the precise interaction, coordinated work and correct economic relations of kolkhozes and sovkhozes and service enterprises and organizations.

The new management organs are gaining strength. Their first steps support the timeliness and advisability of improving the management of agriculture and the entire APK. Many RAPO have concentrated their attention upon the main problems in the rural economy, are setting up intersectoral ties and eliminating departmental barriers.

Thus, the Petrovskiy RAPO in Stavropol Kray is doing extensive organizational work on the introduction of scientifically based agronomic systems at each farm. Here there is general concern about improving soil fertility and crop production standards, and mastering the proper crop rotations with clean, well tilled and fertilized fallow. In this rayon they are successfully expanding interfarm cooperation in animal raising and gardening. They are introducing industrial technology into crop and animal production. The RAPO Council and farm collectives are exerting much effort to improve product quality and to perfect sales on the basis of direct ties. All output from dairy farms is procured on the spot and hauled in butter and cheese plant transport, 95 percent of the milk sold is grade A. The RAPO Council's attention is centered upon improvements in economic work, the introduction of effective cost accounting and collective contracts. More than two-thirds of the arable land and a sizable number of animal farms have been attached to brigades operating on contracts. As a result of the measures taken, all farms meet their obligations to the state and are working at a profit and high profitability. In 1984 the rayon's grain crop yields averaged 25.3 quintals per hectare. In 4 years of the five-year plan the state was sold, in addition to the plan, 46,000 tons of grain, 1,800 tons of livestock and poultry, 11,000 tons of milk and many other products. Last year the profitability level of agricultural production reached 45 percent and profits increased to 27 million rubles. The rayon's farms do not have overdue debts to Gosbank and are supporting their expanded reproduction through their own resources.

There are good work results at the Kanevskiy RAPO in Krasnodar Kray, the Aleyskiy in Altay Kray, the Glazunovskiy in Orel Oblast, the Yershovskiy in Saratov Oblast, the Kinelskiy in Kuybyshev Oblast, the Arzamasskiy in Gorkiy Oblast and at many others.

However, there are still many RAPO's with activities not distinguished by high efficiency. The managers of such associations are still, to a great extent, working in the old fashioned way, making poor use of their rights and

potentials and have not completely understood the essentials of restructuring management. Some conclude that RAPO's do not have full authority, but then where do the better agro-industrial associations, achieving high results from their operations, get their authority?

There are still several complaints about the work of enterprises in Selkhoztekhnika, Selkhozkhimiya, processing enterprises, procurement and construction organizations. In a number of rayons engineering services, agrochemists, procurement and processing workers still continue to be more concerned about their own departmental interests, not wanting to change the old method and style of work. There are delays in spreading the reception of products at the production site and its centralized haulage, a method beneficial to farms and the state. There are sometimes violations of the principles of equal rights, economic mutual advantage and mutual responsibility of APK partners. Some of the partners attempt to put themselves above kolkhozes and sovkhozes, dictating to them the volumes and quality of services and work when the interests of the matter urgently require assuring the organizational and economic independence of farms and the development of socialist enterpreneurial qualities. These partners do not want to understand that their task is to ever more energetically and properly help collectives at agricultural enterprises increase production at rapid rates, to unfailingly supply them with equipment, fertilizer and other resources, to reliably service them and to timely procure and process agricultural raw materials.

One of the main tasks of RAPO councils is to increase the attention paid to the land and to more persistently introduce scientifically based systems of crop production. The experience of the agro-industrial associations in Stavropol and Krasnodar krays is very instructive in this regard. They have introduced scientifically based zonal systems of crop production, worked out with consideration given to soil-climactic and economic conditions at each kolkhoz and sovkhoz. It is no accident that last year farms in Krasnodar Kray harvested the highest yields from grain crops in recent years. Even with unfavorable weather conditions agricultural enterprises in Stavropol Kray also achieved results which were not bad. Many agro-industrial associations and collectives at kolkhozes and sovkhozes are giving special attention to the effective use of irrigated land, the area of which has increased sharply here recently. Each hectare of irrigated land in the Kuban and the Stavropol area now holds an average of 6,000-7,000 feed units, compared to 3,600-3,800 for the republic in general.

Rural workers in Leningrad Oblast are also doing a great deal of work on agricultural production intensification, land reclamation and improving the fertility of land. They have organized the industrial preparation of peat and other composts, applications of which now average up to 21 tons per hectare. Together with other elements of good agronomic standards, this has increased potato yields to 160-200 quintals per hectare, produce to 330-360 and coarse and succulent feeds to 2,000-2,500 feed units per hectare. Intensive technologies capable of increasing labor productivity are used in meat and dairy operations, swine and poultry raising and in the production of feeds, potatoes, and produce.

Widespread use is being made of the experiences of party and soviet organs and agro-industrial associations in Omsk Oblast in the social transformation of the countryside. Here, under the difficult conditions in Siberia, 20-25 well equipped apartments per farm are annually put into operation. There is also extensive cultural-service and road construction. This helps stabilize collectives and reduce the outflow of the rural population to the city.

Tyumen Oblast's experience in reclaiming land and improving its fertility also deserves dissemination. Year around reclamation detachments set up on the basis of cooperation between kolkhozes, sovkhozes and water resources organizations do extensive amelioration and other simple types of reclamation which help bring order to the fields and improve land productivity. Systematically increasing crop yields, in recent years farms in the oblast have expanded tilled land by almost 200,000 hectares, are steadily increasing agricultural production and fulfilling their obligations to the state.

In agro-industrial associations in the Tatar ASSR there is well set up joint work between kolkhozes and sovkhozes and enterprises in Selkhoztekhnika and Selkhozkhimiya. This has helped quickly solve major problems in strengthening farm's material-technical base (including for equipment repair, servicing and storage). Improvements in relations between APK partners have had a direct positive effect upon the economic indicators of agricultural enterprises.

All the efforts and resources of kolkhozes and sovkhozes and the attention of RAPO councils are now concentrated upon the successful fulfillment of targets for the current year and the five-year plan as a whole and upon increasing the production of grain, feeds and animal products.

The 1985 plan calls for increases in the deliveries of mineral fertilizers and other chemicals to agriculture. Agro-industrial associations are allocating the main share of the increase in fertilizer deliveries to grain and feed crops. Especially in dry steppe regions, this increases the efficiency of clean fertilized fallows and reduces the time of autumn plowing. Expansion of the planting of winter and spring wheat grown by industrial technology is becoming a major reserve for increasing the gross harvest of grain in this and subsequent years. Agro-industrial associations and collectives at kolkhozes and sovkhozes are taking the measures necessary to implement the decisions made on this question and to, even this year, increase the production of grain, especially hard and durum wheats.

The decisions of the October (1984) CPSU Central Committee are at the center of attention of all agro-industrial associations in the republic and of the appropriate ministries and departments. The implementation of the broad program for land improvement approved by the Plenum is a firm basis for increasing the country's food stocks. Introducing these measures also has great social importance, as reclamation radically transforms rural life, has a positive effect upon the productivity of agricultural labor and keeps key personnel at kolkhozes and sovkhozes.

In accordance with the Plenum's decisions, there should be considerable increases in the quality of designing and building projects for irrigated and

drained land. All work will be comprehensive, with a view to many years of service and high returns from reclamation facilities. Even now much is being done to improve the use of reclaimed lands. Agro-industrial associations have taken control over the allocation of fertilizer, equipment, plant protection agents and other resources to such lands. Special concern is shown for economically weak farms, where it is planned to substantially expand work on the simplest types of reclamation. These farms are also given help in preparing to use reclamation engineering systems.

Putting natural forage lands into order is a very effective measure. Not only reclamation organizations but kolkhozes and sovkhozes themselves are enlisted into this work.

Much is now being done at farms to prepare for spring field work. No matter how difficult the situation in a number of regions in the republic which suffered from severe drought in 1984, the tasks are to complete, in an organized manner, the wintering of livestock and consolidate those positive results which have been obtained in animal raising in the past two years. The possibilities for this are everywhere.

There should be special concern about the strictest economies of grain going for forage purposes. This should be attained through increasing the production of coarse and succulent feeds, organizing their processing at feed facilities of kolkhozes and sovkhozes and through improving the nutritional value of feeds.

Agriculture in the republic is now executing a sharp turn towards qualitative economic indicators for farming. This is understandable. Given the more strict procedure for credits and financing, each kolkhoz and sovkhoz must learn how to intelligently and thriftily conduct operations, based upon its own income obtained from product sales. In other words, they are to assure expanded reproduction through their own resources, more economically and rationally use resources, reduce outlays and struggle against losses and uneconomical operations. This means to produce as much more as is possible from the same areas, the same size herds and with minimal outlays of labor, material and financial resources.

Among the qualitative economic indicators for production, first place should be given to time savings and improvements in labor productivity. K. Marx considered time savings a major indicator of social progress and characterized it as the first economic law for collective production. V. I. Lenin gave the time factor decisive significance. "...To win time," he wrote, "means to win all..." (Complete Collected works, t 44, p 50).

Time savings in agricultural production are especially important, as high production growth rates must be attained with a reduced rural population, not to speak of the fact that deadlines for performing work especially in crop production, decide everything -- they cannot be extended or stretched out.

One should stress that there are still very large reserves and potentials for increasing labor productivity in agriculture. This is indicated by the great differences in labor outlays per unit of output. Thus, while farms in

Leningrad Oblast expend 3-4 person hours per 1 quintal of milk, in Moscow Oblast and the Karelian ASSR the figures are 5-6, and in Bryansk, Ivanovo, Orel, Gorkiy, Kursk and Tambov oblasts and the Chuvash ASSR they exceed 11, while the average for the RSFSR is 8 person hours. Differences in this indicator between farms are even greater. In meat animal raising labor outlays per unit of growth range from 4-5 to more than 80 person hours.

In spite of fixed capital in dairy operations growing several fold in recent years, the work load per worker (main and auxiliary) averages only 13 cows for the republic.

The reasons for this lie in the still somewhat low level of comprehensive mechanization, especially in animal raising, produce growing, orchards and other sectors, instead of comprehensive mechanization, the mechanization of individual, separate production processes, the weak introduction of modern industrial techniques into crop and animal production, the insufficient reliability and efficiency of some machinery and equipment supplied by industry, etc.

In 1985 we are faced with meeting taut targets for growth in agricultural production. Labor productivity should increase by 12 percent, making it possible to achieve the entire increase in output through savings in labor.

Agro-industrial associations of rayons, oblasts, krays and autonomous republics are exercising daily control over the fulfillment of obligations by kolkhozes, sovkhozes and other enterprises to increase labor productivity and extensively expand socialist competition among farm collectives for above plan increases in labor productivity and reductions in production costs.

The struggle to universally reduce production outlays is an exceptionally important factor in saving labor, material and financial resources. It is still essential to conduct extensive and purposeful work here, for, in spite of the favorable economic conditions in the countryside created by the decisions of the May (1982) CPSU Central Committee Plenum, agricultural production costs are only being reduced slowly in many rayons and farms, and in some they are continuing to grow. The production cost per quintal of live weight increase for cattle and pigs on the republic's bolkhozes averaged 250 rubles, while milk costs were 34 rubles per quintal. These indicators are not any better on sovkhozes, although outlays per unit of output are somewhat lower at progressive farms. Take, for example, the Nazarovskiy Sovkhoz in Krasnoyarsk Kray. During the current five-year plan, this farm's collective increased grain production by 41 percent, milk by 11 percent and meat by 19 percent compared to the 10th Five-Year Plan. Grain crop yields were 9.6 quintals per hectare in the 7th Five-Year Plan, 15.9 in the 9th, 22.3 in the 10th, and 33.4 quintals per hectare in the four years of the 11th Five-Year Plan. As a result of intelligent and economical farm operations, production costs per quintal of grain declined to 4-5 rubles, for milk the figure was 15-16, for beef 64-66 and swine -- 56-58.

These data are evidence of the large unutilized reserves and potentials for reducing production outlays, and economizing on labor, material and financial resources. As comrade M. S. Gorbachev noted in his report to the All-Union

Economic Conference on Problems of the Agro-industrial Complex: "An analysis of the situation in the agrarian sector shows that far from all management cadre have mastered economic methods of operations. Some of the workers have an insufficient mastery of categories such as price, production costs, profit, profitability and output-capital ratios." As a result, operating managers often lose sight of questions such as the rate of return [okupayemost] on capital investments, the use and rate of turnover of funds, the quality and protection of output and other important economic categories upon which the strengthening of the rural economy depends.

In order to radically improve this work agro-industrial associations in the republic are strengthening their economic services, organizing the retraining and certification of specialists, and their training in contemporary methods of farm operations.

The main tools for the stable growth in economic indicators for production at kolkhozes, sovkhozes and service enterprises is the general introduction of effective cost accounting, and progressive forms of labor organization and payment. In recent years much has been done in this direction. There has been a considerable increase in the number of contract collectives and improvements in their work. Last year 53,000 brigades and links worked under contract on field operations. More than one-half of arable land was attached to them. The animal raising sector is being converted to collective contracts. Here there are now 66,000 collectives taking care of 18 percent of the cattle, 33 percent of young cattle 65 percent of the sheep and one-third of the pigs and poultry.

As a rule, units working under collective contracts have 25-30 percent higher crop yields and livestock productivity, 20-25 percent higher labor productivity and 8-10 percent lower production costs. The decisive role here is played by the worker's individual interest in the final result -- obtaining the greatest amount of high quality product. Friendly mutual assistance, collective responsibility, a managerial, thrifty attitude towards land machinery and equipment also have a positive effect.

Nevertheless, in spite of their clear advantages, collective contracts are not taking root everywhere, they are only being slowly applied at a number of places, and they have not produced sufficient results at a number of farms.

One of the most important directions in the activities of agro-industrial associations is the struggle for all around savings and thrift, reductions in losses and improvements in product quality through the widespread introduction of progressive technology in the production, processing, storage and transport organization. In 1985 and in subsequent years these goals are the target of large capital investments, considerable strengthening is intended for the material and technical base of the industrial sectors processing and preserving output.

The food, meat and dairy industries are introducing highly productive equipment, low waste and waste free technology in order to more completely and comprehensively process agricultural raw materials.

It is planned to substantially reduce losses of grain, potatoes, produce sugar beets and other products during harvest and transportation. Improvements in feed balance with regard to protein and other components and in the organization of their preparation and use, have reduced feed consumption per unit of animal product output.

Measures are being implemented to reduce losses of mineral fertilizers and other chemicals. These include the construction of mechanized storage facilities, agrochemical complexes, fertilizer mixing units, and the use of progressive methods for fertilizer application. In the immediate years ahead this will help increase the return from the use of chemical agents by at least 12-15 percent.

Agro-industrial associations are to bring strict order to the consumption of fuel and lubricants. Petroleum bases at kolkhozes and sovkhozes are being built and reconstructed. Petroleum product accounting and norm setting is being improved. Workers are to be more responsible for the rational use of fuel and lubricants and for reductions in consumption norms.

As previously, the social transformation of the countryside, the retention of key personnel there, improvements in their skills and the formation of a stable labor collective at each farm remain important parts of work. The party views concern about people, the creation of stable conditions for work and life and the further blossoming of cultural life in the countryside as a firm foundation for successes in agricultural production and for the agroindustrial complex as a whole. This is why the social aspects of solutions to the Food Program are now being given first priority. This is all the more important because the cadre situation at many farms, especially in the Nonchernozem and forest steppe region remains very difficult and strained.

The 1985 plan makes provisions for introducing almost 10 millior square meters of housing at kolkhozes and sovkhozes and other enterprises in the APK. This is considerably more than in previous years. It is proposed to expand cooperative and individual home building, and to construct communal facilities. During the year preschool facilities for 65,500 children, general educational schools for 40,400 and clubs and houses of culture for 88,200 in rural areas will be built.

Work on the social rebuilding of the countryside is under the constant, unwavering control of party, soviet and economic organs. Contracting construction organizations are of great help in this matter. However, their activities cannot be considered sufficient, as the share of contract work in rural residential construction does not now exceed 35-40 percent. The method whereby kolkhozes and sovkhozes do their own construction is still poorly supplied with construction materials and plumbing fixtures. In some places housing standards do not meet modern requirements.

There is thus still much to do and many tasks to handle in the rural social sphere. It is essential that agro-industrial associations be letter based and more persistent in working on these questions, considerably strengthen organizational work on rural social development and strengthen labor and organizational discipline. It is also important to show more concern about improving the work of rural general educational schools and professional

technical schools and to create comfortable conditions for young cadre's work and recreation at farms.

As practical experience indisputably proves, a comprehensive solution to rural social problems radically changes the cadre situation and helps build permanent labor collectives at kolkhozes and sovkhozes.

The efforts of all partners in the republic's agro-industrial complex are now directed towards the Food Program. Together with agricultural organs, enterprises in the meat and dairy industry are, in this and following years, to considerably increase the on the spot procurement of livestock, poultry and milk and haul it by procurement organization transport. Workers in industry providing material and technical support to agriculture and related sectors face great tasks in supplying equipment, mineral fertilizers, chemical agents for plant protection, in strengthening the base for timely and high quality processing of agricultural products, reducing losses and assuring their preservation and security.

The republic's flour-groat and mixed feed industry will be further developed. Compared to the beginning of the current five-year plan, in 1985 its output will increase by 10 percent. Local soviet organs and agro-industrial associations are giving more attention and assistance to the development of the microbiological industry, which is now of major significance for the further intensification of agriculture.

The Russian Federation has sizable forests, which play a major role in protecting water and land resources. The "gifts of nature" play a not unimportant role in improving people's diets. According to data from the RSFSR Ministry of the Forestry Industry, every year in Russia the public picks about 300,000 tons of wild fruits and berries (of which, 60,000 tons are purchased by procurement organizations), 200,000 tons of mushrooms and 50,000 tons of nuts. In the republic there are now a total of 4.5 million hectares of nut picking zones, about 4,000 hectares of plantations for sea buckthorns, 2,000 hectares of dog rose, hundreds of hectares of viburnum, rowan berries and other valuable crops. Work is being done to assure the more effective use of forest resources, to restore forests, expand the planting of forest shelter belts, above all in sandy soils and to protect against the spread of gulleys and ravines.

The RSFSR Council of Ministers Presidium Commission on APK Problems includes the managers of the Ministry of Agriculture, Ministry of the Fruit and Vegetable Industry, Ministry of Procurements, Ministry of the Food Industry, Ministry of the Meat and Dairy Industry, Ministry of the Fish Industry, Ministry of Land Reclamation and Water, Glavnechernozemvodstroy [The Main Nonchernozem Zone Water Resources Construction Administration], the Ministry of the Forestry Industry, the RSFSR Kolkhoz Construction Association, Rospotrebsoyuz [the RSFSR Consumers Union] and workers in responsible positions at Pursh Gosplan and RSFSR Gossnab [State Committee for Material and Technical Supply]. This makes possible a thorough and qualified examination of all the most important current and long term questions in the development of the republic's agro-industrial complex and its central component --agriculture.

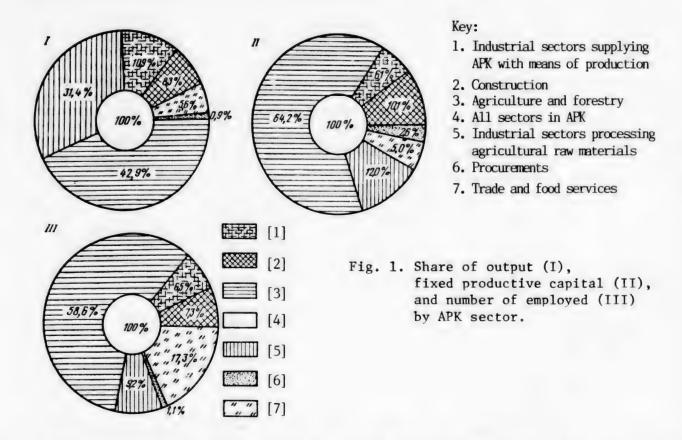
The Commission has concentrated its attention on meeting the targets of the Food Program. It is coordinating the activities of ministries and departments in the republic APK, solving the intersectorial problems which arise, discovering and using additional reserves to increase the production of agricultural products and foodstuffs, and to improve their quality and expand their assortment. It makes preliminary examinations of drafts for annual and long term plans for the development of the APK as a whole and the sectors within it, draft balances and plans for the distribution of products from agriculture and the food industry, and material resources among APK sectors. Following assignments from the RSFSR Council of Ministers and upon its own initiative, the Commission prepares appropriate proposals for the further development of the APK.

Two years experience in the Commission's work shows that there is closer interaction and smoother work between ministries and departments in the APK. At the same time, one cannot help but see that departmental interests continue to have influence on its activities.

Some enterprises in Glavnechernozemvodstroy and other main administrations of the USSR and RSFSR Ministries of Land Reclamation and Water Resources unjustifiably put second priority upon doing very simple reclamation and amelioration projects which, at low cost, will substantially improve field conditions and soil fertility. The RSFSR Ministry of Agriculture, the RSFSR Ministry of the Fruit and Vegetable Industry, Glavnechernozemvodstroy and the RSFSR Ministry of Land Reclamation and Water Resources still do not engage in enough business-like, design collaboration making it possible for them to jointly do high quality design and construction on reclamation systems and to more effectively use irrigated and drained lands. This has a negative effect upon improving land fertility and causes Glavnechernozemvodstroy year after year to fail to fulfill plans for the preparation of peat bogs for peat extraction for fertilizer purposes. The RSFSR Ministry of Land Reclamation and Water Resources tolerates the neglected state of many reclamation systems.

The RSFSR Ministry of the Meat and Dairy Industry and the RSFSR Ministry of the Food Industry do not show enough concern for strengthening the production base for the processing and storage of agricultural products and improving the locations of meat, dairy and food industry enterprises. In recent years they have mainly built large and super large projects. This has led to a sharp reduction in the number of small plants and procurement points and increased haulage distances. These ministries are only slowly eliminating these shortcomings, although it is quite obvious that it is essential to rapidly bring the processing industry closer to raw material zones and to rationally combine large, medium and small comprehensively mechanized processing enterprises.

RSFSR Goskomselkhoztekhnika often allows low quality repair and technical servicing on the machine and tractor fleet of kolkhozes and sovkhozes and on animal raising equipment. Neither has it completely reexamined rates for services and work at kolkhozes and sovkhozes. This also fully applies to Rosselkhozkhimiya. One encounters cases where the volume of work and services



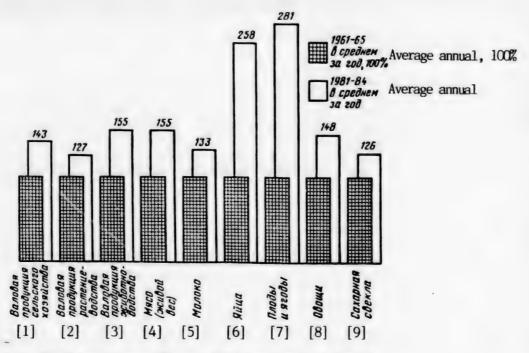
for kolkhozes and sovkhozes is set without giving consideration to their requests.

The RSFSR Ministry of Procurement is poorly performing its functions as organizer of agricultural product procurement. It often passes over violations of state discipline and does not take the measures essential to improve agricultural product quality.

The RSFSR Ministry of Rural Construction and Roskolkhozstroyobedineniye do not everywhere fulfill their plans for residential, cultural-service and road construction, especially for remote, economically weak kolkhozes and sovkhozes.

The RSFSR Council of Ministers Presidium Commission on Agro-industrial Complex Problems sees its task in persistently continuing to improve the coordination of activities among ministries and departments in the republic's APK, organizing their smooth operation in the interests of increasing agricultural production and improving product quality, assuring the proper economic relations between kolkhozes and sovkhozes and the enterprises and organizations servicing them.

Local soviets of people's deputies and their ispolkoms are doing a lot of work to improve the activities of agro-industrial associations. Without replacing the new management organs, they are enhancing their role and responsibility for meeting the targets of the Food Program and concentrating efforts upon speeding up scientific-technical progress, intensifying agricultural



Growth in RSFSR Agricultural Output (All categories of farms)

Key: 1. Agricultural gross output

2. Gross output of crop production

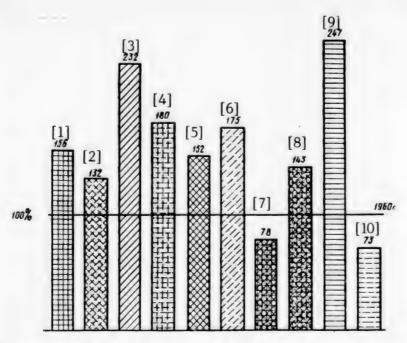
3. Gross output of animal production

4. Meat (live weight)

5. Milk

6. Eggs

- 6. Eggs
- 7. Fruits and berries
- 8. Vegetables
- 9. Sugar beets



Changes in the consumption of food products in the RSFSR in 1983 compared to 1960 (per capita, percent, 1960 = 100 percent)

- Key: 1. Meat and meat products in terms of meat (including lard and subproducts in physical terms)
  - 2. Milk and dairy products in terms of milk
  - 3. Fee:
  - 4. Fish and fish products

- 5. Sugar
- 6. Vegetable oils
- 7. Potatoes
- 8. Vegetables and melons
- Fruits and berries (without processing into wine)
- 10. Grain products

production and improving its efficiency and the social development of collectives.

In the final year of the five-year plan agricultural workers in the RSFSR obligate themselves to produce 12 percent more output than the average annual indicators for the 10th Five-Year Plan. It is intended to increase grain production at pace setting rates. The procurement of coarse and succulent feeds is to be increased. All this will be attained from the same amount of land and same size herds through increases in yields on grain and other agricultural crops and in animal productivity.

Facing the 27th CPSU Congress, workers in the Russian APK are doing everything they can to completely fulfill their obligations to the state and, on the basis of production intensification, to realize the targets of the Food Program.

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#### AGRO-ECONOMICS AND ORGANIZATION

### REGULATORY PROBLEMS OF KAZAKH APK EXAMINED

### Kazakh Institute Director Interviewed

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 28 May 85 p 3

[Interview with M. T. Baymakhanov, director, Institute of Philosophy and Law, Kazakh SSR Academy of Sciences, on the occasion of the opening of All-Union Scientific-Theoretical Conference of Jurists in Alma-Ata by G. Sobol'yeva; date not given]

[Text] The All-Union Scientific-Theoretical Conference of Jurists, "Current Problems of the Agroindustrial Complexes," has opened in Alma-Ata with 150 scholars from 30 cities around the country participating. M. T. Baymakhanov, director of Kazakh SSR Academy of Sciences' Institute of Philosophy and Law, responds below to questions put by KAZAKHSTANSKAYA PRAVDA correspondent G. Sobol'yeva.

[Question] Murat Tadzhimuratovich, what can and should our legal system do to improve the organizational forms, the management, the planning, the entire administrative mechanism of the agroindustrial complex?

[Answer] I think we should try to make use of the creative and organizational potential of the law. After studying the needs of the agroindustrial complex and its problems and difficulties, our jurisprudence can offer a number of solutions in the way of defining an optimum structure for the complex, assigning rights and responsibilities to the various components of the complex, strengthening the principles of mutuality of relations both within and without the complex and in connection with both short— and long—term planning. We frequently see economic methods set against administrative actions, no thought, apparently, given to the fact that the law plays a role in what those involved in production are doing and that many economic measures are enacted with the support of legal norms.

[Question] But jurisprudence is a really diversified field of knowledge. There's state law, administrative law, kolkhoz law ....

[Answer] It is true that each one of the branches of jurisprudence approaches the problems of the agroindustrial complex from a different point of view, but taken together they contribute to the development of an integrated approach.

State law and soviet development, for example, study the economic functions of the organs of power. The problems of the agroindustrial complex are examined with the question in mind of how the integration of kolkhozes, sovkhozes and enterprises promotes the integrated socioeconomic development of the particular region involved. The USSR constitution imposes the obligation of insuring this kind of healthy development on the local organs of power. They are responsible for establishing the proper mix of basic and secondary industries and then supplementing this with support for improvement of the social and domestic services infrastructure.

These problems have been the subjects of monographs by scholars at our institute: "The Status of Oblast Soviets in the Kazakh SSR in State Law," "Oblast Soviets and Subordinate Industrial Enterprises" and "The Supreme Soviet of the Union Republic and its Constitutional Authority," for example. These monographs are an attempt to establish the theoretical basis for a general model of integrated socioeconomic development.

Specialists in agrarian and civil law are giving particular attention to the problems of the agroindustrial complex. Our institute has established a new area of specialization, nature conservation law, in charge of which is A. Ye. Yerenov, a candidate member of the Kazakh SSR Academy of Sciences. These scholars study problems concerning the legal status of land, water and forests, particularly as it concerns the agroindustrial complex. Among the monographs we have published are "Legal Protection of Nature in the Kazakh SSR," "Experience with Agrarian Transformation in the Soviet Far East" and "The Object and the System of Soviet Agrarian Law."

[Question] What material do these scholars draw on in their studies?

[Answer] We have to know what the real needs of the agroindustrial complex are. So scholars study conditions as they actually are in the various localities and familiarize themselves with the production records of the ministry of agriculture and material available from the commission of the presidium of the council of ministers on the agroindustrial complex.

[Question] What practical effect do these academic studies have? What real practical application do we see?

[Answer] Well, first of all, our scientific studies and computations are taken into account in amending and improving legal standards. As we know, the law cannot simply reflect what is; it also has to have an eye to the future and take account of trends and take a long-term view of a course of development. And it is none other than academe which we see guiding these trends. Many laws are adopted with the direct participation of our colleagues. It was the scholars, for example, who drafted the laws on air pollution and the protection and use of animals.

[Question] One of the basic problems of the agroindustrial complex is the insistence on maintaining this dual subordination: an enterprise constituting a component of an agroindustrial association and subordinate to its council will at the same time be planned and financed along departmental lines. Hence the paradox of engineers within the complex requiring direct links between the sov-khozes and the enterprises while this frequently flies in the face of departmental interests.

[Answer] All these problems and this particular paradox are primarily the result of the fact that the essential nature of the agroindustrial complex and the patterns in its development were initially not clearly understood and defined. Legal experts are now of the opinion that we should give the agroindustrial councils more power and authority at all levels—rayon, oblast and republic and establish a single unifying principle upon which to base the organization of all complexes.

[Question] Where do the subsidiary farming operations carried on by industrial organizations and enterprises and the private plots fit into the agroindustrial complexes?

[Answer] In the case of the enterprise farms, the complex councils might play the key role, in helping them put up feed, buy cattle and find knowledgable specialists, for example. Jurisprudence should study the question of the relationships which are being established between the enterprise and the council.

As far as the private farms are concerned, the nihilistic attitude toward them we once saw has now been overcome. They are an important supplement to the public-sector economy and one of the means of insuring a stable supply of rational food products. At the same time, the private farm can and should develop along collectivist lines. They could take the form of cooperative farms, for example, with collective dairy operations and swine- and rabbit breeding and fruit- and vegetable-gardening partnerships. The question of legal relationships arises here, too, relationships which require legal regulation. One of our students recently defended a doctoral dissertation on the legal regulation of private farms.

[Question] Can the law help improve the operation of the economic mechanism of the agroindustrial complex?

[Answer] This is the objective of our efforts. The mechanism involved in the operation of economic contracts, for example, needs overhauling. Things have gotten to the point where sovkhozes and kolkhozes cannot get their requests satisfied properly and they have to take up the role of suppliant. Now, those people who are not discharging their obligations properly do not bear the necessary responsibilities. So what we have to do is develop a system of legal norms which would force the fulfillment of contracts which have been entered into clearly and unambiguously.

I think that after it discusses the critical social and economic problems associated with the development of the agroindustrial complexes, our conference will be able to arrive at a number of solutions to these real difficulties.

Conference Discusses Problems of APK Development

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 30 May 85 p 2

[Article: "Conference Discusses Agroindustrial Complex"]

[Text] Problems associated with the effort to establish the food program on solid legal foundations found themselves on the agenda of the All-Union Scientific-Theoretical Conference on Current Problems of the Agroindustrial Complexes

organized by the academies of sciences of the USSR and the Kazakh SSR, which met here May 27-29 here in Alma-Ata. Noted scientists and specialists from all union republics took part in the conference.

The conference underlined the importance of the tasks outlined by the April (1985) CPSU Central Committee plenum concerning implementation of the food program. Acceleration of the growth in agricultural production is going to require that everything possible be done to improve the management of the agroindustrial complex, an effort in which our jurisprudence will play a critical role.

Questions concerning the need to give a larger role to the soviet of people's deputies in the direction of the agroindustrial complex and to provide more effective legal instruments with which to guide the development of the complex received particular attention during the course of the discussions and the exchanges of experience. The soviets of people's deputies and their executive agencies must always treat agriculture, processing and transportation as a single object of management and planning, hel these industries interact more efficiently and promote the establishment of more effective administrative-organizational, supply, marketing and contractual relationships between them.

Among the important tasks now on the agenda are the analysis of the organizational and operational experience which has been accumulated at all echelons of the APK and the development of recommendations for improving legislation in the area of agricultural management and the management of the agroindustrial complex in general.

Together ith planning, the economic contract plays a central role in the economic administrative mechanism of the APK. Recent years have seen a number of important steps taken to regulate these contractual relationships. Scholars at the conference also discussed the need for a thorough study of the practices involved in applying the provisions of an economic contract and for steps to be taken to give the contract a larger role in relations between enterprises. Our legal experts should be giving particular attention to questions concerning the legal instruments necessary to support the practical introduction of advances in science and technology in agricultural production operations.

Sectional discussions at the conference focused in greater detail on specific problems associated with the economic and organizational management of the agroindustrial complex, ways to improve the efficiency of the economic mechanism and questions concerning the establishment of solid legal bases for insuring efficient utilization of land, efforts to provide effective protection of natural resources, the development of private farming etc.

The conference also adopted recommendations for improving the legal services provided to agriculture and the agroindustrial complex in general.

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# AGRO-ECONOMICS AND ORGANIZATION

### PROBLEMS OF SUBSIDIARY INDUSTRIAL ENTERPRISES VIEWED

Lipetsk Oblast Units

Moscow EKONOMICHESKAYA GAZETA in Russian No 23, Jun 85 p 16

Article by N. Dudorov: "Problems Concerning Development of Subsidiary Farms"/

/Text/ Kolkhozes and sovkhozes are the principal suppliers of agricultural products for the state resources. At the same time, an important role is played in the Food Program by the development of subsidiary farms of enterprises and organizations. Experience accumulated in this regard in Lipetsk Oblast in recent years is deserving of attention. We visited several agricultural departments of enterprises here. I would like to discuss some of the successes in this work and the unresolved problems.

Initially, allow me to cite several figures. According to recent data, there are in the oblast at the present time 114 subsidiary farms of enterprises and organizations belonging to different departments. They differ in terms of both the amount of land made available and the specialization. But the majority of them are engaged mainly in swine husbandry and in the breeding of cattle. In short, they are devoting their principal attention to the production of meat and milk using internally produced feed and food scraps. Last year alone, the subsidiary farms furnished the dining tables of the workers with more than 26,000 quintals of meat. This indicator will again be increased this year and, in addition, the farms will supply 17,600 quintals of milk.

# Organizational Conditions

At the present time, the agricultural departments have been assigned approximately 18,000 hectares of arable land. At enterprises where the collectives include many thousands of workers, the subsidiary farms are accordingly quite large. For example, there are more than 5,000 hectares of arable land at the Karamyshevskiy Metallurgical Combine at Novolipetsk. The subsidiary farms of the Svobodnyy Sokol Plant, the Lipetsk Tractor Plant, the Lipetskstroy Trust and others have large areas at their disposal.

At the same time, the subsidiary farms of small enterprises and organizations utilize small tracts of land, some consisting of only several hectares. When

allocating land for this purpose, the potential of an enterprise for managing a farm of a definite size and the availability of land are taken into account. But in all cases, every attempt is made to ensure that the land does not remain unused.

The farms are provided with the necessary equipment depending upon the farming and livestock husbandry work volumes. It bears mentioning that at the present time they have adequate quantities of tractors, tow-type machines, motor vehicles and combines at their disposal. And in terms of the saturation of equipment for the "green departments," they are on a par with the sovkhozes and kolkhozes.

Some enterprises and organizations carry out construction work on their farms on a cooperative basis. An example of this is the creation of subsidiary farms by the Lipetsk Tractor Plant and the Lipetskstroy Trust. They were allocated one tract of land. Together they installed roads, erected a common boiler room and installed gas and other lines of communication. If the mentioned installations had been built separately, the construction costs would have been considerably greater.

At times, a subsidiary farm is organized jointly. This was the procedure employed by the Lipetsk Machine-Tool Pland and the Lipetskmeliovodstroy Trust. Initially, the plant was allocated 400 hectares of land. And subsequently land reclamation specialists were assigned to it. They distribute the products obtained depending upon the contribution made by each partner.

Permit me to add a few words concerning the staffing of the farms with machine operators and livestock husbandry personnel. At the present time, there are still shortages in these personnel in some areas. But experience indicates that this problem can be solved only through the construction of well organized apartments, possessing all city conveniences, on the farmsteads of the farms. As noted quite fairly by the chairman of the oblast executive committee Aleksandr Sidorovich Gubanov, this is a necessary condition for the creation of stable collectives in the agricultural departments of enterprises.

# Coordinated Operations

An interdepartmental council for subsidiary farms has been created attached to the oblast executive committee for the purpose of solving all problems concerned with the work of the agricultural departments. A variety of problems are examined during its meetings: land utilization, materials for construction planning, measures for combating plant pests and diseases, veterinary services, methods for improving breeding work and other problems. The council is headed by the deputy chairman of the oblast executive committee A. Gubanov. The council consists of 14 individuals, with the members being heads of enterprises or workers attached to party and economic organs.

The work at subsidiary farms is organized in like manner as at sovkhozes. And the workers are paid directly by the enterprise.

# Not All Went Well Initially

The party and soviet organs devoted a great amount of thought to the organization of the subsidiary farms and they strived to allocate land areas to the

enterprises that would be used immediately and produce products. Nevertheless, initially there were some problems. Thus, at the Baryshevskoye Subsidiary Farm, which has cattle, full use was not being made of all of the coarse and succulent feed produced.

At the same time, the Novolipetskoye Farm began experiencing a shortage of land for its rapidly growing livestock husbandry operations. In short, such a large endeavor is rarely carried out without a hitch. But, as the saying goes, this was the disease of growth. And in the future such defects will be eliminated. The Novolipetskoye Farm can obtain the concentrates it needs from the Baryshevskoye Farm. Indeed, they belong to one and the same metallurgical combine. At the given stage, as noted by the deputy director of the Novolipetskiy Metallurgical Combine Viktor Aleksandrovich Golev, this variant is fully acceptable, since it makes it possible to utilize more completely the production capabilities of both farms.

The chief goal established when organizing agricultural departments -- to develop the land more rapidly, create an appropriate logistical base, raise the culture of production such that each hectare produces a greater return. And it bears mentioning that this goal is being achieved. Here are some examples.

Earlier, no more than 5 quintals of grain were obtained per hectare from the low-fertility sandy land on which the Baryshevskoye Subsidiary Farm was created and yet today they are obtaining 16 quintals per hectare. Certainly, this is a low yield and yet a forward step has been taken. How was this achieved? First of all, it was achieved owing to the fact that it became easier to work the land and more fertilizer was applied, both organic and mineral, especially nitrogen fertilizers (the metallurgical combine has a nitrogen fertilizer production operation and thus the farm is allocated as much mineral fertilizer as it requires).

### Unused Reserves

A number of subsidiary farms could be mentioned which during the first years of their existence achieved definite successes in developing production.

But the unused reserves both at these and at other subsidiary farms in the oblast are quite considerable. On many of them, the yields of grain and other crops are still low and incapable of satisfying the productivity of livestock husbandry. It is sufficient to state that the average annual milk yield per cow is still only 2,220 kilograms. This is explained not so much by an inadequate feeding level but rather by the presence of a large number of non-pedigree cattle.

There are many discrepancies of an organizational nature in the life of subsidiary farms. As the saying goes, they still have not been drawn in entirely into the general orbit of the agroindustrial complex. Their financing and supply are carried out by their ministries. They supply the farms with tractors, trailers, combines, motor vehicles, fuel and fertilizers. The agricultural machines are supplied by Selkhoztekhnika in like manner as the kolkhozes and sovkhozes. But it is unfortunate that all too often the funds allocated by the ministries turn out to be inadequate. For example,

Minstankoprom /Ministry of the Machine Tool and Tool Building Industry/ has not solved the problem concerned with supplying the farms of its enterprises with fuel and lubricating materials. This is hampering the work to a considerable degree.

Large areas on the subsidiary farms require lime. But funds are not being allocated for this purpose. Selkhozkhimiya refuses to carry out the work since it is not included in the plan. And the subsidiary farms do not have their own equipment for applying lime. The problem must obviously be solved on a centralized basis for all of the farms. Once land has been allocated to the enterprises, funds should be made available for liming them. It is obvious that the oblast agroindustrial association must furnish the subsidiary farms with a great amount of assistance in carrying out the various operations and in coordinating their activities.

A serious shortcoming in the work being performed by subsidiary farms is the fact that their output is still considerably more expensive than that of sovkhozes and kolkhozes. The chief reason for this lies in the fact that during their creation more funds were invested in fixed capital and the productivity of farming and livestock husbandry has still not reached the level planned. The collective contract, with payments based upon the final results, is still not being employed extensively in the agricultural departments and this is also lowering the effectiveness of production.

We have discussed only a few of the problems confronting the oblast's subsidiary farms at the present time. Some of the methods available for further developing the agricultural departments of enterprises include: solving the above problems in a more rapid manner, increasing the production of field and farm products to the maximum possible degree and maintenance of a regime aimed at achieving economies.

# Auxiliary Farm Effectiveness

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 14 Jun 85 p 2

Article by inspection team consisting of S. Ambartsumyan, Yu. Antropov and V. Tsekhanovich, Smolensk - Omsk - Orel - Moscow: "Agricultural Department At the Crossroads"/

Text/ Agricultural department of an enterprise -- an expression that has become a common one for us. The subsidiary farms of a number of branches are furnishing perceptible additions to the food funds. For example, up to 20 kilograms of meat annually per worker at an enterprise.

Enterprises of Minpribor /Ministry of Instrument Making, Automation Equipment and Control Systems/ also have agricultural departments. And yet here the return is not as plentiful: for the branch, only 2.9 kilograms of meat per worker, very little milk, eggs or vegetables and no fish. Why is this?

Four enterprises of Minpribor are located at Smolensk. All of them are leading and strong installations with modern technologies and labor organization. It would seem that subsidiary farms would be a match for them. Alas, work in the three agricultural departments of the Smolensk instrument makers is not proceeding very well and it would seem that the Tekhnopribor NPO scientific production association should not have created them. Very little meat is being obtained at the Analitpribora, Kristalla and Iskry subsidiary farms and the plant workers can only dream about such things as greens, fruit and fish. It would seem that the enterprise leaders are devoting a great amount of effort to the problem and still no improvements are being realized. Thus, in all probability there is no consistency or a well thought out system being employed under these conditions.

For example, we have heard friendly complaints being registered concerning a shortage of feed or, more exactly, the land required for obtaining feed. There will be arable land and pigsties and calf houses will appear, but the work will not change they maintain. And here is what happens in actual practice.

It was 4 years ago that the oblast executive committee allocated 100 hectares for the Analitpribor Subsidiary Farm at the Denisovskiy Sovkhoz. But for all practical purposes, this land has still not been touched: the plant workers sow in quite another area -- on a small tract which, in accordance with the principle "what's yours is mine and what's mine is yours," was obtained from the Kolkhoz imeni Ilich. And what if the land is taken away tomorrow?

The leaders of the association were not inclined to develop a tract of land that was allocated legally -- it was troublesome and costly. The Iskra and Kristall subsidiary farms are experiencing problems with their land tracts. Here the farms are often built in the absence of an official right to the land. Such an atmosphere engenders a lack of confidence, instability and unsatisfactory results.

In all probability the work would proceed more rapidly and in a better manner if the four Smolensk enterprises of the same ministry were to combine their efforts and create one large subsidiary farm. Or at least a common feed base. In the oblast executive committee, we met with the chief of the land management department V. Boldovskiy.

"Faced with such a problem, we would have found a good tract of land -- one that would have been enough for all" stated Viktor Kirillovich, "and frankly speaking, today's independence tends to stick in our throat."

This then is the situation. But the initiative to combine efforts is not apparent either "above" or "below."

If we examine the branch as a whole, then it would appear that the subsidiary farm of the Omsk Elektrotochpribor installation is rated as being only average. A good farm with construction being carried out on housing and a kindergarten. People come to work here willingly. But the chairman of the professional trade union committee, V. Belyayev, admits: only a limited amount of output is being obtained. And indeed the ministry has not spared either funds or equipment for the Omsk workers. But the technological and labor discipline leaves a great deal to be desired and the opportunities afforded by the socialist competition are not being utilized. This explains why the return is low.

The time is at hand for the subsidiary farm of the Omsk instrument makers to cease marking time at the crossroads. And there can only be one road -- to radically improve the work of the agricultural department and to supply the plant workers with an abundance of food products.

The inspection team revealed that the subsidiary farms of both the Smolensk and Omsk instrument makers experienced many difficulties with the repair of equipment and with the agrochemical, land reclamation and veterinary services. The corresponding services in the various rayons are engaged in carrying out kolkhoz and sovkhoz work and have no time for the subsidiary farms of enterprises. Beyond any doubt, the local organs should devote thought to how best to remove the excess workload from the plant agricultural departments.

Nevertheless, many if not all understand the importance and need for having a good agricultural department and the desire, in action and not just in words, for overcoming the difficulties regardless of how difficult they might be. Here is an example. The subsidiary farm of the Orel Prompribor PO of this same ministry has been in existence less than 3 years and the results here are quite noticeable. Construction work has been completed on a pigsty for 300 head, a feed preparation shop, a grain threshing floor, spacious storehouses and on housing. The farm is supplying the plant's dining hall with 400 quintals of pork annually.

But the secretary of the party committee, M. Mezhnev, maintains that this is only the beginning. Before long a new pigsty for 800 head will be turned over for operation and the Orel instrument makers plan to increase their meat production to 20 kilograms per worker annually.

The "green" cuisine of the plant's public catering service has an abundant amount of materials: lettuce and vegetable seasoning for the dishes are mandatory on the menus of one out of every three dining halls. At the present time, it is possible to purchase fresh carrots, dill and parsley on the territory of the enterprise. Several thousand carp are under cultivation in the farms' pond.

And indeed they began, similar to others, from zero -- nobody created any special conditions. Each question was a problem: feed, young stock, construction materials, availability of personnel and others. But everything turned out alright.

We summarized some of the results of the inspection team in the office of the deputy minister for instrument making, automation equipment and control systems N. Bezus, where specialists responsible for the development of subsidiary farms in the branch had gathered. And here is what developed. This question was examined during meetings of the board and at special conferences. Many fine and correct words were expressed and still the amounts of fish, vegetables and meat obtained were inadequate. There is no efficient program for action, no exactingness and no objective requirements. It is believed that the time for persuasion has passed and that authority must now be employed. Indeed, so long as one out of five of the branch's large enterprises obtains meat from its own subsidiary farm, there is no need for discussing small ones.

The time is at hand for the branch's staff, jointly with the central committee of the professional trade union, to undertake in a serious manner the development of the subsidiary farms and to raise their efficiency.

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CSO: 1824/422

## AGRO-ECONOMICS AND ORGANIZATION

# DEVELOPMENTAL PROBLEMS IN SUBSIDIARY INDUSTRIAL ENTERPRISES

Moscow EKONOMICHESKAYA GAZETA in Russian No 28, Jul 85 p 17

[Article by Ivan Iosifovich Fedorus, head of an administration in the USSR Ministry of Meat and Dairy Industry, under the rubric "The Agro-Industrial Complex -- at Enterprise Subsidiary Units": "Using Internally-Produced Feed"]

[Text] Ivan Iosifovich Fedorus, administration head at the USSR Ministry of Meat and Dairy Industry, tells about experience and problems with the development of subsidiary units at enterprises of the ministry.

In just over four years the number of subsidiary units [farming operations] at enterprises of the ministry has risen from 524 to 1,200. We have developed recommendations and a statute on the subsidiary agricultural unit. They specify the place and role of agricultural shops in the structure of the enterprise, who they are responsible to and who they report to.

The enterprise itself plans the work of the subsidiary unit, taking account of available land, machinery, livestock, and service personnel. The technical, industrial, and financial plan includes a special section which reflects annual volumes of production by agricultural shops in monetary and physical indicators, the structure and sum of expenditures, requirements for labor and material resources, financial results, and necessary capital investment.

Providing feed for animals is a difficult problem for many subsidiary units. For this reason it was recommended that the units organize procurement of waste food from public catering and waste products from processing meat and milk and use it for animal feed. A branch of the State Institute for Planning Enterprises of the Meat and Dairy Industry developed a set of "passports" [industrial descriptions] for subsidiary agricultural units; it contains plans for construction of various small livestock buildings made of lightened construction elements. And our enterprises are now successfully using these recommendations.

The number of subsidiary units is growing most rapidly at enterprises in Kazakhstan, Lithuania, and Azerbaijan and at the All-Union Soyuzkonservmoloko [USSR Preserved Milk] Industrial Association. A number of subsidiary units are fully meeting the meat and vegetable needs of the dining halls at their enterprises. Among them are the agricultural shops at the Lenkoran Meat Combine (Azerbaijan) and the Leninsk-Kuznetskiy Meat Combine (Kemerovo Oblast). How were they able to achieve this? It was mainly due to the resourcefulness of enterprise managers, good organization of the work, and the joint efforts of the entire collective.

At the Lenkoran enterprise they began by re-outfitting the old building of the livestock receiving point, bought 40 breeding sows at the Krasnyy Partizan Sov-khoz, and organized reproduction and fattening of the animals. They also built a cowbarn. They plan to increase the dairy herd to 100 cows in the future. It is noteworthy that the entire collective took part in building the agricultural shop.

Fields of alfalfa and other crops are placed near the livestock units. The subsidiary unit has a permanent staff of 16 persons. Their wages are dependent on the quantity and quality of output received.

The experience of the Leninsk-Kuznetskiy Meat Combine in Kemerovo Oblast is also interesting. Last year its subsidiary unit was awarded the Challenge Red Banner of the USSR Ministry of Meat and Dairy Industry and the Central Committee of the Trade Union of Food Industry Workers for its good production indicators.

The unit was given a plot of land of 100 hectares. On it they organized feed production and built a hogshed and a cow barn. In addition they planted a fruit and berry orchard, erected hothouses and hotbeds, dug a pond, and set up an apiary.

With the establishment of the agricultural shop the enterprise dining hall now always has fresh vegetables and meat. It has become possible to sell them to enterprise workers and employees. Meat production at the unit per employee has now reached 100 kilograms.

I want to stress that the agricultural shops of our enterprises use their own feeds, a large part of which is food waste. Therefore, the share of feed in the prime cost of output produced is low. For example, the Alma-Ata Meat Combine makes broad use of whey from milk and waste food from the dining halls of enterprises, children's institutions, the preventive health facility, and the rest and recreation zone to prepare feed for the hogs.

Because the Ministry of Meat and Dairy Industry system has many enterprises with under 200 employed persons, considerable attention is being given to setting up subsidiary agricultural units on a cooperative basis with enterprises of other departments. Agricultural shops have been formed on such conditions in Kalinin, Gorky, Ulyanov, Rostov, and Voronezh oblasts and Krasnodar Kray. In all, 63 subsidiary agricultural units are working on cooperative principles. Thus, the efforts of several enterprises are applied to build structures for maintaining livestock which mechanical equipment can be used, which creates favorable conditions for highly productive labor.

But who works at the subsidiary units? Generally their collectives are formed from people who have farming skills and want to work on the land. They are trained beforehand on the so-called technical minimum program. Experience shows that training in advance has a positive effect later on the results of work by the agricultural shops.

In this respect, contracts for labor cooperation with kolkhozes and sovkhozes have proven to be useful. For example, milk plants take on the obligation of

of helping the subsidiary units set up receiving points and improve the quality of milk, while kolkhozes and sovkhozes obligate themselves to help industrial enterprises organize subsidiary units and supply them with high-yielding seed. The benefit from such cooperation is two-sided.

Each year all-Union competitive inspections of enterprises for the best subsidiary unit are held in the system of the USSR Ministry of Meat and Dairy Industry. The purpose of them is to stimulate enterprise initiative in setting up agricultural shops and make fuller use of opportunities for adding to food resources. Last year a number of subsidiary units were awarded money bonuses and honorary certificates of the USSR Ministry of Meat and Dairy Industry and the Central Committee of Food Industry Workers based on the results of the contest. Among them were the agricultural shops of the Tomarovka Meat and Poultry Combine (Belgorod Oblast), the Bekabad Meat Combine (Uzbekistan), and the Panevezhis Meat Combine (Lithuania). At the present time their experience is being summarized so that it can be broadly used at other enterprises and figured into the calculations of volume of production of agricultural output for the 12th Five-Year Plan.

The activation of work to set up and develop subsidiary agricultural units made possible a notable improvement in the supply of food products to the collectives of our enterprises. Suffice it to say that meat production at the agricultural shops rose from 2,600 tons (live weight) in 1980 to 7,700 tons last year. Milk production rose 3.5 times, vegetable production increased 2.5 times, and potato production almost tripled.

The challenge at the present time is to see that all enterprises of the meat and dairy industry either have their own subsidiary units or organize them jointly with other enterprises in the near future. The opportunities for this exist; the main thing is to be able to put them to use. Unfortunately, the managers and trade union organizations of numerous enterprises are assuming a waiting posture and unjustifiably delaying this important cause, giving various kinds of excuses for this. Subsidiary agricultural units are being set up and developed slowly at many industrial enterprises in Latvia, Turkmenistan, and the RSFSR.

Lack of machinery, seed, mineral fertilizer, and other materials greatly complicates the work of the agricultural shops. Some time ago, however, the CPSU Central Committee and the USSR Council of Ministers, in their December 1978 decree entitled "Subsidiary Agricultural Units of Enterprises, Organizations, and Institutions," obliged the Union republic Councils of Ministers, the USSR Ministries of Agriculture and Procurement, and Goskomselkhoztekhnka to take steps to meet these needs of the subsidiary units. But this order is not being adequately carried out.

The ministries are not given plans for delivery of material-technical means for the agricultural shops of industrial enterprises, even though according to the above-cited decree USSR Gosplan and Gossnab, during development of plans for the distribution of tractors, combines, mineral fertilizer, and other material-technical resources, were supposed to specially designate them for subsidiary agricultural units in the plans of USSR ministries and departments beginning in 1980. Unfortunately, this is not being done.

# FORESTRY AND TIMBER

### YELTSIN ADDRESSES TIMBER CONFERENCE ON RESOURCE USE

Moscow LESNAYA PROMYSHLENNOST in Russian 4 Jun 85 p 1

\_Article by B.N. Yeltsin, head of the Construction Department of the CPSU Central Committee: "An Important State Task"/

/Text/ As has already been reported, in conformity with the decree of the CPSU Central Committee entitled "The Operational Experience of the Collectives of Enterprises of the All-Union Industrial Associations Yugmebel and Tsentromebel and the Kiyevdrev Production Association In Connection With the Extensive Use for Economic Purposes of Secondary Wood Raw Materials and the Waste Products Obtained From Timber Procurements and Wood Processing Operations," an all-union seminar dedicated to studying the initiative of leading subunits was held in Rostov-na-Donu. This seminar was attended by executives of the CPSU Central Committee, USSR Council of Ministers, USSR Gosplan, USSR Gossnab, GKNT /State Committee for Science and Engineering/, AUCCTU Central Committee and the Komsomol Central Committee, the deputy chairmen of the councils of ministers of a number of union republics, the secretaries and heads of departments of the central committees of the\_communist parties of union republics, kraykoms /kray committees/, obkoms /oblast committees/ gorkoms /municipal committees/ and raykoms /rayon committees/ of the party, the chairmen of republic, kray and oblast committees of the branch professional trade union, the leaders of USSR Minlesbumprom /Ministry of the Timber, Pulp and Paper, and Wood Processing Industry/ and USSR Gosleskhoz /State Committee for Forestry/ and of individual ministries, associations and enterprises.

Those who participated in the meeting analyzed the valuable experience and discussed the opportunities available for disseminating it further. Those in attendance acquainted themselves with the work of specialized sectors for the processing of secondary wood raw materials and waste scraps at the Yugmebel VPO, at the Rostselmash Plant and in the oblast forestry administration.

We are herewith publishing an abridged version of the speeches made by some participants in the seminar.

A tested method of the CPSU Central Committee with regard to the management of communist construction is that of thoroughly studying, generalizing and supporting valuable undertakings.

In the report delivered by the general secretary of the CPSU Central Committee Comrade M.S. Gorbachev during the Arpil (1985) Plenum of the party's central committee, it was emphasized that "The complicated and large-scale tasks of the modern stage, those which touch upon all aspects of our life, can be solved only on the basis of live creativity on the part of our people."

The work performed by the collectives of the Yugmebel, Tsentromebel and Kiyevdrev associations in utilizing waste scraps which were lost earlier, scraps which were formed during the course of wood processing operations, can be referred to precisely as live creativity on the part of the workers, specialists and party leaders. First of all, they organized the complete utilization of their own waste scraps. Towards this end, the required amounts of equipment and transport vehicles were procured and turned over to subordinate enterprises and a storehouse and container economy was created. The measures carried out made it possible to obtain 300,000 cubic meters of technological chips annually.

At the same time, the associations studied in an industrious manner, and I wish to emphasize the term industrious, the opportunities available for utilizing wood waste scraps in other branches of industry and in forestry. The specialists inspected 250 enterprises and organizations where the waste scraps of sawmill and wood working production operations and also from improvement cuttings are either discarded, delivered to the dump pile or burned. They were provided with the necessary assistance in organizing the processing of the wood waste scraps and delivering them to the consumers. Measures for stimulating the material interest of collectives engaged in carrying out this work were developed and implemented.

As a result and with minimal labor and financial expenditures, the furniture workers in the southern and central parts of Russia and the wood workers of Kiev have provided 1.5 million additional cubic meters of wood raw materials for processing since the beginning of the five-year plan. This made it possible to realize a savings in the amount of almost 2 million cubic meters of lumber, to release 25,000 railroad freight cars for the transporting of other national economic freight and to realize an overall economic effect in excess of 30 million rubles.

In assigning a positive evaluation to the experience of the Yugmebel, Tsentromebel and Kiyevdrev associations in gathering up earlier unused waste scraps, the CPSU Central Committee noted that this was only the beginning of a great amount of work. Leading experience must be disseminated on an extensive scale and introduced into operations in an active manner, such that it will be possible even this year to achieve realistic results in increasing, through this means, the resources of wood raw materials.

Three months have passed since the adoption of the decree of the CPSU Central Committee. It should be noted that a definite amount of organizational work has been carried out in connection with implementing it. The problems

concerned with making use of secondary wood raw materials have been discussed by the boards of ministries, appropriate orders have been issued, detailed measures have been prepared and approved and certain improvements have been noted in the carrying out of practical work.

Local party organs are beginning to devote more attention to the use of forestry resources. In many central committees of the communist parties of union republics and in kray and oblast party committees, these questions have become an object for special study. A notable amount of propaganda work is being carried out by the media, television, radio and the central, branch and local press.

It is important to emphasize that the collectives of initiators, following publication of the decree, did not remain content with that which was already achieved. During 4 months of this year alone, they gathered up and processed 240,000 cubic meters of timber waste scraps, or 17 percent more than that for the same period last year.

In the work of making efficient use of all resources, the achievements of the Prikarpatles Association and enterprises of the timber and wood working industry in Estonia, the Karelian and Komi autonomous republics and in Arkhangelsk, Bryansk, Volyn and a number of other oblasts are also significant.

And although much has been accomplished, at nevertheless must still be recognized today that the branch continues to operate on an unstable basis.

This year's plan for sawn timber, wood panelling, plywood, plant manufactured homes and other nomenclature is not being fulfilled. Nor is the situation any better in the case of labor productivity, production costs, profit and other indicators. Yes and serious effort must be directed towards raising efficiency.

The Politburo of the CPSU Central Committee and the April Plenum of the party's central committe raised the question concerning unconditional fulfillment of this year's plan and without any corrections being introduced into it.

However, the operational results reveal that the measures approved by USSR Minlesbumprom for eliminating the lag that developed during the 1st quarter are unfortunately still not being carried out completely.

In his report delivered before a ceremonial meeting dedicated to the 40th anniversary of the victory achieved by the Soviet people during the Great Patriotic War, the general secretary of the CPSU Central Committee Comrade M.S. Gorbachev pointed out the chief criterion for economic development at the present time -- achieving high final results with the best use of resources.

In examining the work of the forestry complex from this standpoint, it should be noted that its conversion over to an intensified basis is being carried out very very slowly. The problems concerned with the development of the raw material and processing sub-branches continue to remain unsolved. Such problems as mechanization and reducing the number of personnel performing manual labor are being solved in a poor manner. Within the branch, those

leaders who only speak out in favor of economies but do nothing to achieve them are still not being transferred. The forces of inertia obviously still prevail as some personnel still cling to old methods.

At the present time, colossal material, fuel-energy and labor resources are being channeled into the orbit of industrial and construction production. They are being handled in the proper manner -- this represents a savings in the work of many thousands of people. This is a question of great state importance at the present time.

The timber, pulp and paper and wood processing industry and forestry occupy an important place in the country's economy in terms of the diverse nature of the products being produced.

The country's forestry complex produces tens of billions of rubles worth of products. It is fully obvious that, considering this scale of production, each percentage of savings in resources, similar to losses, amounts to an impressive annual sum for the state.

Our country has at its disposal one fourth of the world's supplies of timber. We occupy first place in the world in terms of wood procurement volumes. Despite this fact however, the national economy constantly experiences an acute shortage of products.

Such a situation is explained by a number of factors. First of all, the enterprises of USSR Minlesbumprom and other departments are systematically failing to fulfill their production plans for lumber. Secondly, tremendous losses in timber are being experienced during procurement, processing and transport operations. We are obtaining fewer timber products from each cubic meter of timber procured than is the case in developed capitalist countries.

Last year the problem of timber industry operations was examined twice by the Politburo. In the decrees adopted by the CPSU Central Committee and the USSR Council of Ministers, it was pointed out that insufficient use is being made of the potential available to the timber and wood processing industry and to forestry for increasing their contribution towards developing the country's economy and raising the standard of living of the people.

The Central Committee has called upon the central committees of the communist parties of union republics and the kray and oblast party committees to increase the amount of attention being given to the work of enterprises and organizations of the forestry complex and to undertake measures aimed at improving the management of party organizations.

The decrees outlined a large-scale program of a long-term nature, the carrying out of which requires great efforts on the part of the party, soviet and professional trade union organs and by leaders at all levels. However, the established tasks are being solved only slowly.

As yet, USSR Minlesbumprom and USSR Gosleskhoz have not approved the statute on all-round timber enterprises or the program for their organization during the 1985-1990 period.

The problems concerned with delivering additional supplies of wood to active enterprises the raw material bases of which have been exhausted are being solved in only a weak manner.

Up until the present time, USSR Gosplan, USSR Gossnab, USSR Minlesbumprom and USSR Gosleskhoz have still not provided the government with recommendations for organizing the collection of all types of wood waste scraps or the structure for administering this work throughout the country. Many local party and soviet organs failed to display persistence in solving this task and at a time when the opportunities for utilizing secondary forestry raw materials in a number of republics, krays and oblasts are not less than they are, for example, in Rostov Oblast.

The enterprises of USSR Minlesbumprom are not truly engaged in developing the production of technological chips. The production of chips has not increased since 1978, despite the fact that positive experience is available in this regard. For example, let us take Arkhangelsk Oblast. Practically all of the enterprises engaged in procuring and processing timber participate in the work of making use of secondary wood raw materials. The annual production of chips of all types here has been raised to 3 million cubic meters and this constitutes one fourth of the volume produced at all enterprises of the ministry.

The oblast party organization has assigned the task of increasing the production of chips to 4 million cubic meters and this will make it possible to obtain approximately 200 cubic meters of chips for each 1,000 cubic meters of timber procured, or four times more than the figure for the branch as a whole. This is a practical reference point for all and especially for Perm, Sverdlovsk, Kirov, Tyumen, Irkutsk and Leringrad oblasts, Krasnoyarsk Kray and for the entire region of operation of Dallesprom. The level of use of secondary wood raw materials in various associations still differs sharply from that achieved by leading enterprises. For Prikarpatles, Yugmebel, Tsentromebel and Kiyevdrev, it amounts to 90-96 percent, while for the ministry as a whole -- approximately 50 percent.

The specialists consider it possible to increase the production volume for chips to 30 million cubic meters for the national economy. In other words, the possibility exists of augmenting the lumber balance by 20 million cubic meters, that is, by the amount lacking at the present time. And indeed it is precisely because of an absence of raw materials that the plans for many types of forestry materials are for the most part not being fulfilled today.

Such a large-scale approach requires a radical change in the attitude towards this important work. It is my opinion that the psychology of the leaders must be changed. All of the accessible timber procurement and wood processing waste scraps must be processed and presented precisely as lumber resources.

Special attention must be given to the creation of municipal points for the collection and procurement of wood waste scraps, in keeping with the example set by the Yugmebel Association. The Rostselmash workers have provided a fine example of zealous management. The party committee and the association's management, on instructions from the oblast party committee, created a plant

point for the collection and processing of wood. Similar arrangements have been made by miners, at construction industry enterprises and by various organizations in Rostov Oblast, Krasnodar Kray, Kiev and some others.

Where should one begin? All local resources of wood waste scraps and secondary raw materials on the territory of a republic, kray or oblast must be taken into account. These sources, in keeping with the example set by the Rostov workers, should be confirmed as a raw material base and assigned to each pulp and paper, hydrolysis or wood paneling enterprise and in those areas where such facilities are not available, small user-enterprises should be built. Sectors for processing the waste scraps should be created through the joint efforts of the consumers and suppliers, transport equipment should be made available and the economic interrelationships of the partners should be defined. An efficient program of action must be approved, with the party committees exercising control over its implementation.

In the work of making secondary wood raw materials and the waste scraps of timber procurement and wood processing work available for economic use, an important role will be played by forestry enterprises. They provided the initiators with a great amount of assistance in searching for and utilizing additional raw material resources for the production of wood paneling. Forestry enterprises which operate in so-called lightly forested regions can and must increase substantially their contribution towards improving the timber supplies for their regions.

Unfortunately, these are still only individual examples. There are a considerably greater number of areas throughout the country where almost no attention is being given to the matter of utilizing secondary raw materials. For example, there is a large-scale chip board panel production operation in the city of Murom in Vladimir Oblast, for which purpose 48,000 cubic meters of technological raw materials are brought in from Kirov and Gorkiy oblasts. Approximately 1,000 railroad freight cars are used for transporting this freight.

Wood paneling plants were built in the Kazakh, Georgian, Armenian and Azerbaijan union republics in accordance with their urgent requests. Although built especially for the purpose of utilizing the waste products available in the republics, nevertheless these plants operate mainly on the basis of imported raw materials, brought in from remote regions of the country. The local party and soviet organs have resigned themselves to this situation.

USSR Minlesbumprom and USSR Gosleskhoz must jointly develop specific measures for utilizing locally available timber resources and the waste products of forestry operations. Together with USSR Gossnab, the sphere of influence must be defined: who will be responsible for the collection and processing of the waste scraps and in what regions and who will be responsible for creating a special system for organizing this work.

Large enterprises for the production of cellulose, wood paneling and hydrolyt's yeast products have been created in recent years in Siberia and the Far East. However, owing to the lag that has developed in the creation of capabilities for producing technological chips from waste scraps and low-value wood, these

giants as a rule are using 1st grade wood as their raw material, wood that is suitable for the production of sawn lumber, crossties, carpentry goods and other products. USSR Minlesbumprom is not undertaking radical measures aimed at correcting this abnormal situation.

Today a new and more complicated task concerned with the complete mastering of resources, including timber resources, is manifesting itself in the zone of the Baykal-Amur Trunkline.

From the very beginning, a requirement has existed for creating constantly active all-round timber enterprises in this region, with all work associated with the reproduction of forests and the complete processing of wood concentrated in them. Disproportions and uncoordinated operations cannot be tolerated, since they result in tremendous losses in raw materials throughout the country.

The task of producing consumer goods is a very urgent one at the present time. USSR Minlesbumprom and USSR Gosleskhoz are today producing such goods in the amount of more than 7 billion rubles and yet unfortunately this figure is still too low. There are oblasts in which 80 rubles worth of furniture are being produced per capita, but there are also some in which less than 20 rubles worth are being produced per individual. And throughout the entire country, furniture is being shipped from west to east. This is disorder. The furniture industry must be developed in an energetic manner in a number of oblasts in order to raise it to the level found in the Baltic republics, Moscow, Rostov Oblast, Krasnodar Kray and others.

The role and responsibility of branch science must be raised sharply. Today the scientific-research institutes operate in an uncoordinated manner and they are only weakly oriented towards developing modern means and equipment for a waste-free technology for use in the processing of wood raw materials and waste scraps. Here there are many primitive technical solutions which call for excessive expenditures of unappealing manual labor.

Certainly, the machine building ministries are first of all responsible for the production of mechanisms and machines and yet today it is wrong to hope that all forestry machine building will be carried out only by Minstroydormash /Ministry of Construction and Road Machinery Manufacture/ and Minstankoprom /Ministry of the Machine Tool and Tool Building Industry/. Thus, in addition to the requirements imposed upon these ministries, a separate base should be developed for machine building within the forestry complex.

We must concentrate the attention of the work collectives on studying the experience of the initiators and ensuring that it is disseminated on an extensive scale. The status of work concerned with the utilization of secondary wood raw materials, not only at enterprises of USSR Minlesbumprom and USSR Gosleskhoz but also by all departments engaged in processing wood, must be evaluated in a critical manner.

A most important national economic task is that of placing in operation local types of raw materials and secondary wood resources. The solution for this problem must always be the object or attention by the bureaus of party

committees, the boards of ministries and by the work collectives. The socialist competition for achieving economies and thrift and ahead-of-schedule fulfillment of the tasks of the final year of the five-year plan and for preparing in a worthy manner for the 27th CPSU Congress, must be raised to a higher stage.

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CSO: 1824/435

### FORESTRY AND TIMBER

### BUSYGIN SPEAKS TO SEMINAR ON TIMBER INDUSTRY TASKS

Moscow LESNAYA PROMYSHLENNOST in Russian 4 Jun 85 p 2

Article by M.I. Busygin, minister of the Timber, Pulp and Paper and Wood Processing Industry of the USSR: "With a Thrifty Approach!"

Text/ In his report delivered before the April (1985) Plenum of the CPSU Central Committee, the General Secretary of the CPSU Central Committee Comrade M.S. Gorbachev cited an important reserve for accelerating the rates of economic growth for the country -- that of waging a decisive campaign against all types of waste and losses in raw materials, fuel and finished products, including timber. He emphasized that in the absence of a proper system for the utilization of material values, "there can be no discussion regarding effective management or growth in economic efficiency."

With each passing year it is becoming more difficult to solve the tasks concerned with meeting the national economic requirements for timber and paper products, with orientation being exclusively towards increasing timber procurements in regions having a surplus of timber. An alternative to this is an intensification in timber utilization and the processing of wood based upon maximum use of low quality and small-scale commodity production of wood, the waste products of timber procurement, sawmill and wood processing operations and the use in processing operations of secondary wood raw materials which all consumers have, regardless of departmental subordination and based upon a waste-free technology.

All of these trends are reflected specifically in the well known decrees of the CPSU Central Committee and the USSR Council of Ministers, which have been adopted in recent years and which are concerned with development of the country's timber complex and raising its efficiency.

The experience of the workers in Ivano-Frankovsk Oblast concerning the efficient use of local timber resources, approved by the CPSU Central Committee, the decree regarding the experience of the Kotlas and Solikamsk pulp and paper combines on the use of resource-conserving technologies and economies in the use of material resources, the 20 August 1984 decree of the CPSU Central Committee on improving the use of timber raw material resources and the decree of the CPSU Central Committee on the operational experience of the Yugmebel, Tsentromebel and Kiyevdrev associations -- all of these most important documents have become a spirited program of action for the branch's associations,

enterprises and organizations, they have defined the strategy and tactics for our organizational activity and for many years into the future they will have a mobilizing effect on all labor collectives and particularly on our engineering and leading personnel.

As a result, a number of positive results were achieved during the years of the 11th Five-Year Plan. Over a period of 4 years, with negligible growth taking place in the timber procurement volumes, an increase was achieved in the production of effective lumber substitutes -- panels, plywood and cardboard packaging up to 25 percent; in a computation for round timber, this amounted to 273 million cubic meters.

Work was carried out in connection with the creation of all-round associations and enterprises, such as the Ust-Ilimskiy, Kansk, Bratsk timber industry complexes, the Bisert Timber Industry Farm in Sverdlovsk Oblast and production associations in Belorussia, which carry out the procurement and efficient processing of wood raw materials. Technological and economic relationships are developed at these facilities and their structures and administrative programs improved -- in short, the process of accumulating experience continues.

Work concerned with the utilization of all types of wood waste scraps is being carried out on an especially extensive scale in the southern part of the country. Here there is a large number of timber-consuming enterprises of various departmental subordinations. Secondary wood raw material resources are formed at each one of them and yet they are not being used owing to the fact that the enterprises are territorially and departmentally isolated.

Hence the chief trait of the experience of the initiators, the thrifty approach and the socialist enterprise displayed by the collectives with the support of the kray committees, oblast committees, municipal committees and rayon party committees and also oblast and kray executive committees made it possible, with minimal expenditures, to fine effective means, forms and resources for concentrating and gathering up these secondary raw materials for effective processing.

Such an arrangement fully meets the requirements of the party and government with regard to increasing the use of secondary raw materials within the national economy.

The CPSU Central Commit ee, in approving the experience of the collectives of these associations, also placed a high value upon the initiative they displayed. Such an evaluation imposes a high obligation. It is a matter of honor for the leading collectives to always serve as beacons in the branch, to search for and activate reserves for realizing economies, to raise the efficiency and quality of goods being produced, to achieve above-plan growth in labor productivity and to lower production costs. Their example should be followed by many labor collectives in the Ukraine, Lithuania, Estonia, by the associations Bobruyskdrev in Belorussia and Alapayevskles in Sverdlovsk Oblast, the Buryat MDK in the Trans-Baykal region and by a number of others. However, this represents only the first steps to be taken along the path for organizing the all-round use of the entire bulk of wood raw materials being procured.

Computations indicate that, for the country as a whole, the waste scraps from timber procurement and wood processing operations amount to approximately 100 million cubic meters and that less than half of this amount is being used.

It is stated directly in the decree of the CPSU Central Committee that the work carried out at leading enterprises of Yugmebel, Tsentromebel and Kiyevdrev in connection with making greater use of secondary wood raw materials and waste wood scraps is still not finding widespread use throughout the branch.

The CPSU Central Committee has called upon the ministry to eliminate shortcomings in work organization concerned with making greater use of wood waste scraps and secondary wood raw materials and it has demanded that the operational experience of the initiating associations be disseminated on an extensive scale.

At the present time, a coordination committee has been created in the ministry for monitoring the use of secondary wood raw materials. Under the direction of this committee, work has commenced on the development of regional systems for the collection and processing of local timber raw material resources whihe were not used earlier, regardless of their departmental affiliation. The plans call for this work to be carried out during the 1985-1987 period and this will make it possible, using local resources, to supply additional secondary wood raw materials for processing.

Thus, an opportunity has presented itself in particular in Tomsk Oblast for processing 260,000 cubic meters of waste scraps from the Mogochin and Togur LPK's /lumber\_industry complex/ and enterprises of Mintopprom /Ministry of the Fuel Industry/ and this served as the basis for solving the construction problem associated with a DSP /wood laminate/ plant. Tree-felling waste scrap resources in a volume of up to 500,000 cubic meters are available in Sverdlovsk Oblast for inclusion in the raw material balance for the cellulose, panel and hydrolytic production efforts. Naturally, energetic and purposeful work is required both in the center and in the various areas if all of these programs and tasks are to be carried out.

What does the experience of the three associations, as approved by the CPSU Central Committee, tell us? It tells us that where there is desire, interest, initiative, mutual understanding and mutual assistance, the creation of a system for the collection and processing of secondary wood resources is well within the capability of each oblast, each city and each enterprise. Here the task is generally one in which an enterprise which consumes and processes round timber or lumber necessarily concentrates and delivers the wood waste scraps which it accumulates to a raw material market, where they are gathered up and delivered for processing in a timely manner to pulp and paper, hydrolytic, panel and furniture associations.

The experience of Yugmebel and enterprises of the timber industry in Rostov Oblast and Krasnodar Kray confirm the effectiveness of use of small-scale commodity production wood obtained from improvement cuttings in the production of wood paneling. Positive examples of this work are to be found in Latvia, Estonia and in the Carpathian region. In Ivano-Frankovsk Oblast, for example, the average amount of small-scale commodity production wood obtained from

fellings of intermediate use exceeds the annual amount from fellings of principal use. However, the intensity of this work is still low in many regions of the country. As a result, we are not making maximum use of the millions of cubic meters of valuable wood raw materials that are available from local resources and thus we are forced to transport it over thousands of kilometers.

Science must play a large role in implementing the decisions handed down by the party and government with regard to increasing the use of secondary wood resources.

The branch's institutes must expand and develop in a high quality manner the search for new trends in the use of secondary wood raw materials and in the creation of waste-free technological processes.

The branch's leading institutes -- TsNIME /Central Scientific Research\_ Institute of Mechanization and Power Engineering in the Lumber Industry/, TsNIIMOD /Central Scientific Research Institute for the Mechanical Processing of Lumber/, VNIIdrev /All-Union Scientific Research Institute of the Woodworking Industry/, KirNIILP, VNPObumprom /All-Union Scientific Production Association of the Pulp and Paper Industry/ and others -- jointly with the institutes of a number of machine building ministries, have been assigned the important task of creating modern technical means and systems of machines and equipment for the gathering up and processing into chips of various types of waste scraps, sorting it, separating, transporting and organizing standard sections for the collection and preparation of waste scraps at supplier-enterprises.

At the present time, during this tense period of work for the branch's enterprises concerned with eliminating the lag which developed during the 1st quarter, a need exists for once again emphasizing the basic requirement of the April Plenum of the CPSU Central Committee -- the annual plan must be fulfilled and without any corrections being introduced. All organizational and political work must be directed towards achieving this goal and all of our reserves must be mobilized.

Among these reserves, an important place is occupied by the use of secondary wood raw material resources; a good foundation for such use was established by wood processing workers in the center and in the southern part of Russia, in the Ukraine and in a number of other republics and regions.

And today the task consists of ensuring that the experience of leading workers is supported in all areas and serves as the basis for work by each enterprise and each collective, since the chief criterion for economic development is the achievement of high final results from the best use of resources.

It is from such a position that we must impose requirements on the leaders of all elements in our multi-branch economy.

The branch's workers view the program decisions of the CPSU Central Committee on the problems concerned with further development of the timber complex as a guide for action. The collectives of our enterprises and organizations are fully resolved to do everything possible to ensure their implementation and to complete the current year successfully, thus providing a fine base for future work, and to prepare in a worthy manner for the 27th Congress of the Communist Party.

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CSO: 1824/436

### FORESTRY AND TIMBER

# REDUCE MATERIALS CONSUMPTION IN CELLULOSE, PAPER INDUSTRY

Moscow MA TERIALNO-TEKHNICHESKOYE SNABZHENIYE in Russian No 5, Apr 85 pp 14-17

Article by V. Lazutkin, chief of Soyuzglavbum and A. Belova, department head: "Technical Reequipping of Branch and Lowering Material Intensiveness of Output"/

/Text/ The chief source for realizing economies in material resources in the cellulose paper industry -- lowering the bulk-intensiveness of paper and cardboard. Their consumption properties in the polygraphic, food and other branches are determined not by weight but rather by area. Thus the production of goods in metric area should be increased.

The consumption properties of paper and cardboard have predetermined the need for incroducing production accounting and planning in two units of measurement -- in square meters and tons. This substantial change is reflected in the principal conditions for deliveries of cellulose-paper, wood-chemical and hydrolytic products, items made from paper, cardboard and wood\_chemical raw materials, as approved by USSR Gossnab and USSR Gosarbitrazh /State Arbitration Commission in 1970. A special Point 8 was introduced into these conditions and it read as follows: "For paper and cardboard, the production of which is planned and calculated in a dual computation -- in square meters and toos, the delivery volume is indicated in the agreements for the delivery of these products: in tons according to the funds allocated to the purchaser and in square meters, based upon the weight of 1 square meter of each type of product, as called for in the standards or technical conditions and also in the production plan. In the case of deliveries of the mentioned products, the contractual obligations of the supplier are considered to have been fulfilled when the purchaser is supplied with the quantity of products called for in the agreement, in terms of area (in square meters), regardless of the weight of the products.

This point, in the same wording, has been included in the new special conditions for deliveries of cellulose-paper, wood-chemical and microbiological products, wood-chemical raw materials and fibreboard panels, as approved in 1982.

In the past, wages were introduced for workers for the amount of paper and cardboard produced in square meters. New prices were approved for those types of paper and cardboard which are planned in a dual calculation. Units for measuring the metric area of rolled paper and cardboard have been installed at the enterprises.

With the introduction of the system for planning, accounting for and evaluating the work of enterprises according to the new indicator -- metric area -- and also stimulating the production of paper products of a reduced weight, the output under the new calculation exceeds to a considerable degree the growth in production in terms of tons. Last year alone, the planned volumes for the production of newsprint and cardboard packaging material in metric area were exceeded to a considerable degree. Commencing in 1982, a reduction has taken place in the bulk of a square meter of product: newsprint -- from 51.2 to 47.7 grams, cardboard packaging material -- from 171.5 to 166 grams. This same trend is being noted for other types of paper being used by the polygraphic industry.

The development of such a progressive trend in the work of the cellulose-paper industry was promoted by a number of factors. This consisted first of all of introducing scientific-technical progress into the branch, thus making it possible to introduce new and highly productive items of equipment and to modernize the paper and cardboard making machines.

However, the carrying out of the mentioned measures, which were definitely promising in terms of their nature, did not create the conditions required for stimulating the production of fine-grained paper. A need existed for an efficient system of material incentives. And it was developed and introduced in conformity with the order established by USSR Gosplan, USSR Gossnab and the USSR CSA. In accordance with this system, plan fulfillment by an enterprise (brigade, department) or association is evaluated according to the production volume in metric area and computed planned tons (the approved plan, corrected for the actual bulk-intensiveness of the paper products) and realization of the delivery plan in square meters.

The system for stimulating a reduction in the bulk-intensiveness of paper products places greater emphasis upon the quality indicator -- the bulk of a square meter of paper and cardboard in accordance with the GOST state standard (gram per square meter # the permissible deviation) and an evaluation of plan fulfillment -- production of goods in metric area. The stimulation of paper and cardboard production at the lower limit of the permissible deviation, for a square meter of bulk, produces a savings in raw material resources for the production of goods in metric area.

When achieving these results, the wage rates for workers in the principal production operation and auxiliary departments are increased from 10 to 30 percent for each gram of reduction in a square meter of paper or cardboard bulk. Material incentives are also issued to engineering-technical workers. In addition, a mark-up is established for adding on to the price for products of a lowered bulk intensiveness.

All of these factors are promoting a reduction in the bulk of a square meter of paper or cardboard. Last year alone, the consumption of cellulose and wood bulk decreased by 340,000 tons compared to the plan. The weight of the paper and cardboard decreased by more than two and five percent respectively.

Especially high results have been achieved by the collectives of the Kondopoga and Balakhna cellulose-paper combines, which mastered the operational experience

of the branch's leading enterprises -- Kotlas and Solikamsk cellulose-paper combines, in connection with economies in and the efficient use of wood raw materials, fuel-energy and other material resources. They produced 5.7 billion square meters of newsprint with a square meter bulk of 45 grams and they increased the production of this product by threefold compared to the previous year.

At the Syktyvkar Timber Industry Complex, typographic paper No. 1 with a square meter bulk of 70 ± 3 was produced at the lower limit of the permissible deviation from the GOST -- 67 grams. As a result, considerable savings were realized last year in the form of 3,000 tons of fibre and considerable amounts of fuel, electric power, chemicals and other materials.

Such notable advances in lowering the bulk of a square meter of paper product were not achieved all at once. There were a number of factors which held back the production of paper and cardboard of reduced bulk. First of all, the output of a worker and the production plan were established in tons and the funds for the products were also allocated to the consumers in tons. Thus the suppliers were not interested in lowering the bulk of a square meter of paper or cardboard, since this could bring about a discription in the overall production program.

The construction of new and the expansion of existing enterprises, modernization and reconstruction of the principal technological equipment made it possible to solve this task. Following the technical reequipping of many enterprises, the paper-makers quite properly insisted upon converting over to accounting for the products in terms of square meters. Indeed, a substantial savings in raw materials can be realized through the production of paper and cardboard of reduced weight.

The extensive spread of the valuable experience of leading enterprises of USSR Minlesbumprom requires further improvements in the sytem for stimulating a reduction in the bulk-intensiveness of paper products and increasing its production in metric area. Indeed, a solution must be found for the problem concerned with converting over to planning the deliveries of bulk types of paper and cardboard in square meters, so as to lower the bulk-intensiveness of paper products.

In conformity with the system approved by USSR Gosplan, USSR Gossnab and USSR CSA for linking consumers to suppliers, the issuing of supply authorizations and accounting for deliveries in square meters are carried out for 26 types of paper products, including newspring and cardboard packaging material. An evaluation of fulfillment of the delivery plan for 50 types of paper products is carried out in conformity with Point 8 of the Special Conditions for Deliveries.

For the purpose of regulating the setting of norms for paper and cardboard expenditures among consumers and for simplifying accountability and control over delivery discipline, a further conversion is carried out over to the unit of measurement in square meters. This requirement is based mainly upon the fact that the planning of newsprint deliveries in tomage restrains the production of more economic products -- with a reduced bulk per square meter. Moreover,

the use of two units of measurement precluded the possibility of a balanced linking of consumers to suppliers, taking into account the approved programs for freight flow and the optimum shipment routes. Indeed, each enterprise makes paper of a different bulk in terms of square meters. For example, the Kondopoga Pulp and Paper Combine has lowered the bulk of a square meter of newsprint to 47.4 grams and the Solikamsk Combine -- to only 48.3 grams.

In conformity with the optimum plan and the approved program for freight flow, the consumers in the Estonian SSR receive newsprint from the Karelian ASSR and enterprises in the Kirghiz SSR -- from Perm. Funds are allocated to these republics based upon the average branch intensiveness for newspring bulk, equal to 49.2 grams per square meter.

In order to ensure the delivery of paper in tonnage, the enterprises are forced to resupply it in metric area. Moreover, the Kondopoga Combine must do so in greater amounts than the Solikamsk Combine, since its paper is thinner. In carrying out the plan for metric area, the enterprises undersupply it in terms of tonnage. Thus the linking of consumers to suppliers in two units of measurement eliminates balanced support in terms of output.

In order to ensure that fulfillment of the production plan conforms to deliveries in terms of overall paper and cardboard production and also for each type of product, the planning of which is carried out in a dual calculation or only in tons, an indicator production and deliveries in computed planned tons is introduced into operations. This makes it possible to eliminate from the planned delivery volume in tons the amount of the savings obtained from lowering the bulk of a square meter of product.

For newspaper production, the area of paper is important and not its weight. This underscores the advisability of employing one unit of measurement -- square meter, which satisfies both the suppliers as well as the consumers and also the national economy on the whole. Indeed, owing to an average annual reduction in the bulk of a square meter of paper of one and a half to two grams, the delivery plan in metric area has been fulfilled by more than 100 percent for several years now. In the process, a considerable savings in the use of wood is being achieved.

If the allocation of funds and orders for products are carried out in square meters, then there is an additional advantage to the ones already mentioned for the new indicator -- simplicity of accounting. Indeed, the deliveries of newspring, paper for wall-paper and cardboard packaging material are carried out according to area and their cost is established on the basis of length.

If the products are ordered in tons, then two units of measurement -- tons and meters -- are indicated in the agreement concluded. And it is here that Point 8 of the Special Conditions for Deliveries comes into play. In the process, additional information will be required: how many square meters must the producer deliver to the consumer. In view of the fact that the latter can obtain paper products from several enterprises and also from the enterprises of territorial organs, the accounting and control over product deliveries become more complicated.

Experience has shown that the conversion over to planning the production and distribution of products in square meters has not produced any difficulties. The producers and consumers are aware as to how many square meters of newsprint are contained in a freight car. It has become easier and fewer items of rolling stock are needed. Last year alone, as a result of this fact, more than 1,300 freight cars were made available for the handling of other national economic freight. The postmen have also profited. It has become easier for them to carry their bags loaded with newspapers. The consumers are carrying out their accounting and control over paper expenditures based upon area.

In the final analysis, the conversion over to the distribution of products computed in square meters and use of Point 8 of the Special Conditions for Deliveries have made it possible for industry to accelerate and achieve in a more active manner a reduction in paper bulk.

This is true first of all owing to the fact that this conversion does not require an expansion or interpretation of the enlarged nomenclature planned on a centralized basis. The consumers coordinate the volume of paper and cardboard deliveries for a large range of specific items of the enlarged nomenclature, with the suppliers depending upon the requirements.

The producing enterprises are interested in producing specific items. Moreover, today they are oriented towards the lower limit of the permissible deviation in the bulk of a square meter in accordance with the GOST. Planning for the incentive fund, which is distributed depending upon a reduction in the permissible deviation, the introduction of new equipment, economies in the wages for workers in the principal production and in auxiliary departments and other indicators, is carried out based upon the above consideration.

The measures carried out in the pulp and paper industry are raising the interest of enterprises in lowering the bulk of paper products and achieving economies in the use of wood raw materials, other materials, fuel and electric power. Over the past 3 years, the consumption of cellulose and wood bulk decreased by more than 900,000 tons. This represents a worthy contribution towards achieving economies in the use of resources, which will undoubtedly be further multiplied as a result of the extensive introduction of the new indicator.

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CSO: 1824/421

FORESTRY AND TIMBER

BRATSK TIMBER COMPLEX OPERATIONS DESCRIBED

Moscow LESNAYA PROMYSHLENNOST' in Russian 1 May 85 p 3

[Article: "Glory to Communist Labor"]

Excerpt / With a shockwork record and with an elevated political and emotional attitude the workers at the Bratsk Timber-Industrial Complex completed the Duty Shift of Peace and Friendship of Workers in the Pulp-and-Paper Industry of the Socialist Countries in Honor of the 40th Anniversary of Victory over Hitler's Fascism and Japanese Militarism.

In our reporting from this locality we have already told how this event took place. Today our page is devoted to summing up the results of this inspiring holiday of labor, peace, and brotherhood.

A Giant on the Angara

The Bratsk Timber-Industrial Complex is Europe's largest contemporary enterprise engaged in the comprehensive processing of timber. It encompasses 10 plants, including 2 pulping plants, timber and wood-processing, plywood, timber biochemical, chlorine plants, as well as a number of production lines which support the operation of these plants. Proceeding in an uninterrupted flow from them are the following products, which are very important for the national economy and which enjoy an unlimited demand in our country and abroad: cord, bleached, and viscose cellulose, wood-fiber tiles, various types of plywood, lumber, packaging cardboard, wooden parts for motor-vehicle bodies, unfinished billets for agricultural machine building, fodder yeasts, chemicals, consumer goods--more than 50 items in all.

More than 20,000 persons are employed at this giant of timber chemistry, including those in the service field. The present-day BLPK Bratsk Timber-Industrial Complex is a mighty industrial complex which annually consumes 6 million cubic meters of coniferous and deciduous timber. It was put into operation in 1965. At present the commercial volume of the finished items being turned out by it is calculated to be worth almost half a billion rubles.

This complex plays an important role in implementing the mutually profitable sectorial program of specialization and cooperation in the production of countries belonging to the socialist community. It is a vivid example of the rational and effective utilization of production capacities, as well as human and material resources, particularly raw materials, within the framework of inter-state cooperation.

The international ties of the group employed at the BLPK are broad and diverse. They encompass economic, scientific and technical, cultural, and sports ties. Successfully operating at this enterprise are machines, equipment, and tools manufactured in Bulgaria, the GDR, Poland, Hungary, and Yugoslavia. In turn, the BLPK's specialists have rendered a great deal of assistance in erecting and fine-tuning Soviet equipment at analogous enterprises of the fraternal countries. They took part, for example, in the work of putting into operation pulp-and-cardboard enterprises in the Bulgarian cities of Svishchevo and Razlog, in the Romanian city of Braila, and in the Czechoslovak city of Ruzomberok. Dozens of specialists from Bulgaria have passed through their periods of probationary service in Bratsk. Export products from the BLPK are shipped to the GDR, Czechoslovakia, Poland, Romania, Hungary, Yugoslavia, as well as to Cuba.

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August 27, 1985